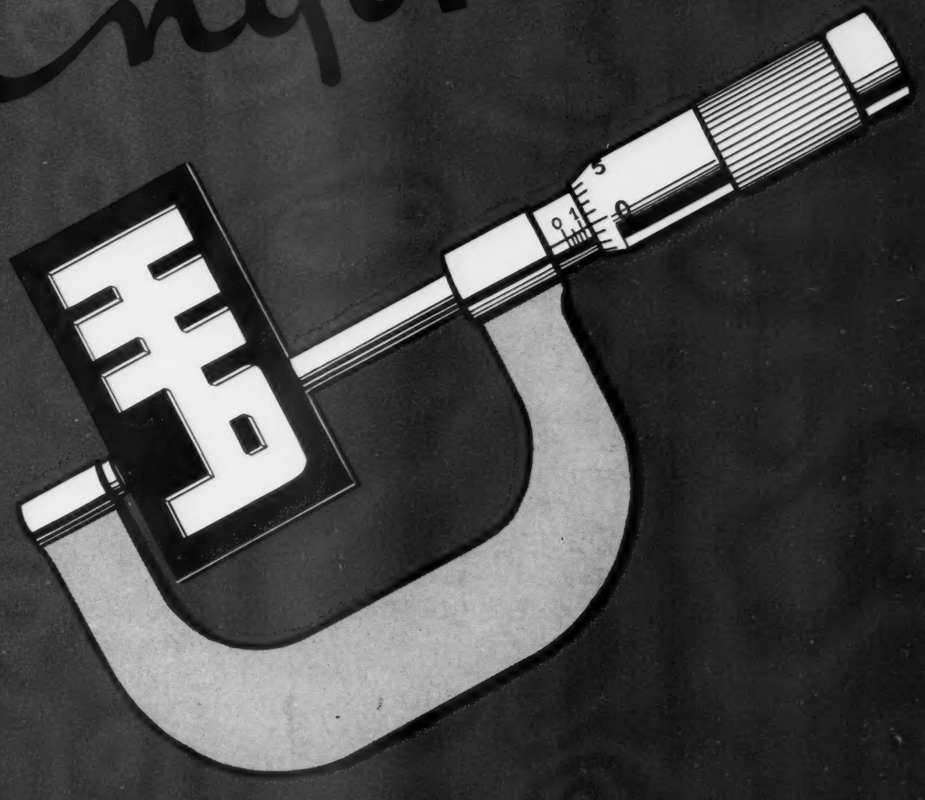
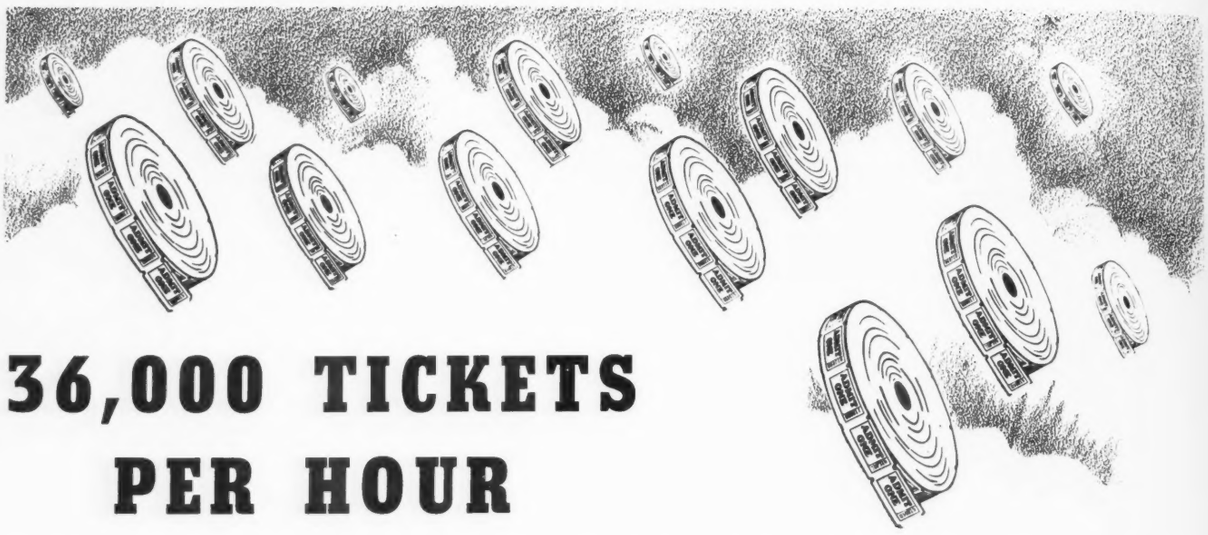
Printing Equipment Engineer



MAY, 1940

A TECHNICAL PUBLICATION FOR PRODUCTION AND MECHANICAL EXECUTIVES IN THE GRAPHIC ARTS INDUSTRY



36,000 TICKETS PER HOUR

That means TEN tickets in the time it takes you to say "NEW ERA"

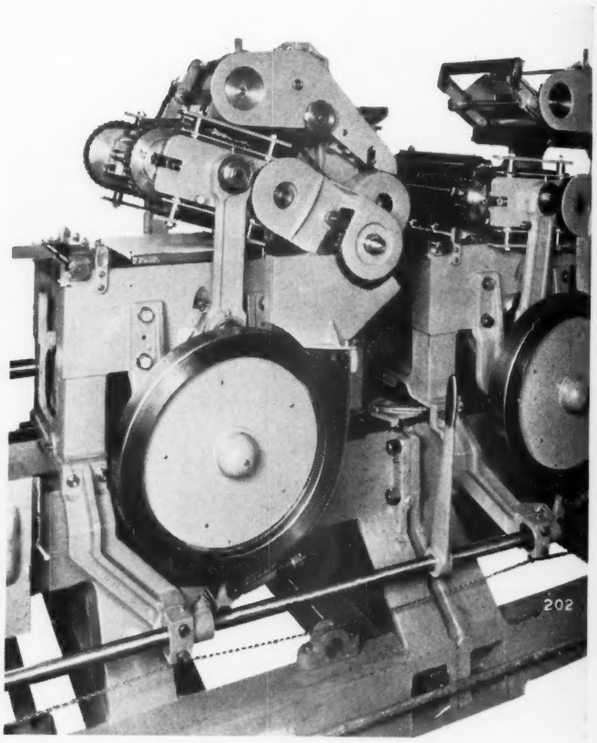
36,000 tickets are a lot of printing . . . but that represents only one hour's work for a New Era flat-bed web press. And that is by no means unusual; for specialty printers all over the country are running regularly at such speeds, on New Era presses, on tickets, tags, labels, and many other kinds of work.

There's money in that kind of printing . . . and more and more kinds of volume printing are being called for as a result of new business methods. SOMEBODY must handle such printing in your locality. Why not YOU?

Tickets, for example. Tickets for railroads, streetcars, buses, theatres, sports events, etc., and restaurant checks, as well as clothing, pin, price and merchandise tickets. Once through the New Era press completes the job.

And that is only ONE kind of work that the versatile New Era press can handle. It is equally good for printing labels and tags of all kinds, on cloth or paper, and for match-book covers, small cartons, etc. Another important New Era field today is REGISTER FORMS — snap-outs as well as continuous zig-zag — which are used by the millions in many kinds of business.

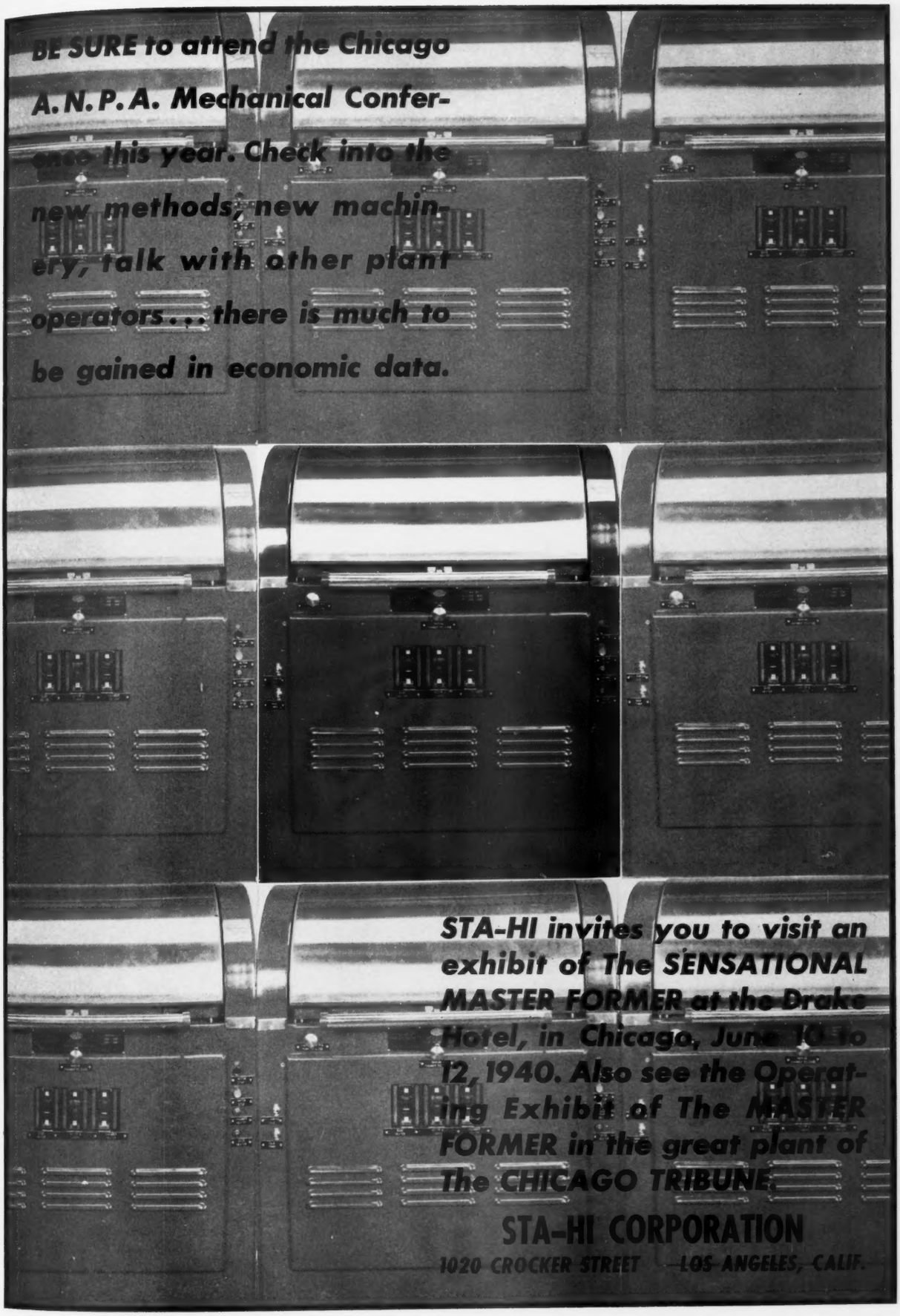
Send us a layout, sketch, dummy or sample of a printed product that you can sell in quantities. Our experience in specialty printing is at your service.



Close-up of two units of a New Era flat-bed web press. As many units as are needed can be assembled in a single machine, for printing one or several colors, on one or both sides of the web, and for a wide range of finishing operations.

NEW ERA MANUFACTURING COMPANY • 369 Eleventh Avenue, Paterson, New Jersey

NEW ERA **FLAT-BED WEB PRESSES**


BE SURE to attend the Chicago A.N.P.A. Mechanical Conference this year. Check into the new methods, new machinery, talk with other plant operators . . . there is much to be gained in economic data.
STA-HI invites you to visit an exhibit of The SENSATIONAL MASTER FORMER at the Drake Hotel, in Chicago, June 10 to 12, 1940. Also see the Operating Exhibit of The MASTER FORMER in the great plant of The CHICAGO TRIBUNE.
STA-HI CORPORATION
1020 CROCKER STREET LOS ANGELES, CALIF.

IMPROVEMENT PROGRAM *in plant of Oklahoma's Tulsa World results in better printed paper and finer working environment — Two old line-composing machines broken up*

By STAFF WRITER

A PLANT modernization and equipment improvement program has been completed by the Tulsa (Okla.) *World*. Business Manager F. O. Larson, Mechanical Superintendent Orel M. Harper and the entire mechanical force are pleased with the $50,000 investment. Included in the program was the installation of a new maple floor in the composing and stereotype departments, and importantly, the breaking up of two old line-composing machines which had served their productive purposes.

The advertising and business offices also have been remodeled and improved with decoration, furniture and lights.

A neon sign, 4 ft. wide by 57 ft. tall is visible for many blocks in each direction. The sign is in color with the words *Tulsa World* placed vertically with a 5 ft. diam. globe placed between the two words.

In the pressroom, the Hoe press equipment was thoroughly overhauled. Each cylinder was given proper attention, including the bearings. New gears were installed throughout and G-E web break detectors and breakers were added.

A new direct air ventilating system is being installed in the pressroom. Pressroom will be refloored and redecorated.

The management is well satisfied with its recent plant improvement. Mechanical Superintendent Harper states that Business Manager Larson long has argued that cheerful surroundings for employes are reflected in the kind of newspaper which is printed. "Evidently he is right," added Mr. Harper, "for the boys are taking keen delight in keeping the place clean and orderly and seem to take more interest in the looks of the paper."

View in proofreading department, Tulsa (Okla.) World. In rearranging the composing room, the proofreaders were located near the Vandercook news proof press. Note the fluorescent lighting fixtures above proof desk.

The stereotype department came in for a considerable share in the improvement program. New casting boxes with automatic temperature control were installed, as were curved routers, tail cutters, and other equipment items.

A new maple floor was laid over the old floor in the composing and stereotype departments. It was laid at a 45 deg. angle, and is kept waxed and polished and is kept clean and free of slugs and litter.

New lights were installed. Principally, the lighting units consist of a Benjamin wide flare reflector with G-E silver bowl bulbs, which transmit an indirect light suspended 7½ ft. from the floor. Some fluorescent fixtures are used. The system furnishes practically shadowless lighting.

Mr. Harper states the place was redecorated by using a casine white for the ceiling, cream for the side walls down to truck or wainscot height. The wainscoting was covered with olive green to the floor. To give some idea of the efficiency of the lighting, Mr. Harper states the accompanying photos were taken without flash bulbs. Lockers for 80 employes have been provided.

In the composing toom ad alley, Hamilton modern ad assembly cabinets. Each cabinet is fitted with compartments for strip material ranging from 4 picas to 130 picas. Three new C&G saw-trimmers and a Vandercook page proof press were also installed. A Rouse band saw and Rouse rotary mitreing machine also were installed.

A new Model 32 Linotype was installed with matrix equipment for casting display faces. All display including 24 pt. is being keyboarded.

As is stated above, two "elderly" line-composing machines were broken up. The floor space released by disposition of these machines together with rearrangement of the machine room, provided space for the proof reading department immediately next to the news proof press. The new arrangement in having the proofreaders next to the proof press saves many steps each day and speeds up corrections in the type matter.

The proofreaders were provided with a specially designed table to accommodate four readers, two on each side with a trough for proofs running lengthwise through the center, and a bin for dead copy between the two proofreaders on each side. Ample space is provided underneath the trough for reference books and a dictionary at the end is easily accessible for either operators or proofreaders. Over the proof desks and the correction banks are suspended fluorescent lamps.

In the makeup department, frames were installed similar to the kind described by Ellis Speer in the September 1939 issue of *Printing Equipment Engineer*. In planning for the frames, waste metal chutes opening to bins beneath were installed centrally in the frames instead of at the end. The chutes project from each side of the frame.

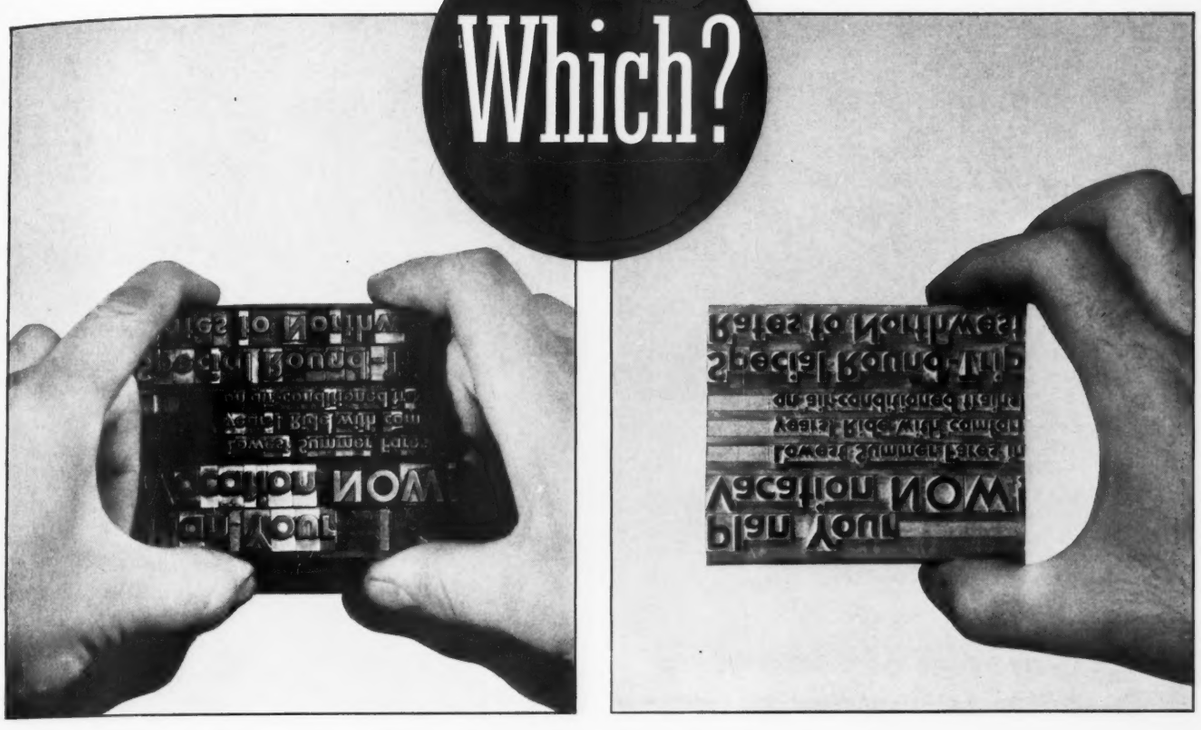
The page makeup trucks have been equipped with rubber-tired Coulson casters which will help to preserve the new maple floor.

View in section of ad alley, Tulsa (Okla.) World, showing new polished maple floor and practically shadowless lighting system. Picture taken without flash bulb.

LNA Convention

President E. H. Wadewitz has announced that the thirty-fifth annual convention of the Lithographers National Association will be held at Hotel Del Monte, Del Monte, Calif., June 4 to 7.

Which?



What a difference there is between handling Ludlow all-slug display composition and composition set in single types! From the moment the first letter is set in type until pages are plated, it's a never-ending battle of wits to keep single types in their proper places!

You don't have to be careful in handling Ludlow sluglines. You don't even need to tie up ads for proofing or transferring from galley to stone. Once proofread and corrected, Ludlow-set lines stay correct. There are no loose commas to slip off the end of lines, no price figures liable to be transposed.

Nobody questions the superior ease of handling slug composition. To gain the fullest benefits and economies, every last line should be slug-cast, thus leaving nothing to chance. The Ludlow system provides the variety of faces, the range of sizes, and speed of setting which makes it the one best way to set display composition. And Ludlow slugs stand up splendidly under the mat roller.

Write us today for information regarding the advantages of Ludlow hand-set, slug-cast composition and for proof of the economy of operation with the Ludlow system.

Ludlow Typograph Company 2032 Clybourn Avenue + Chicago, Illinois

Set in Ludlow Karnak Intermediate and its Italic

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Quick Changes

Easy access to form makes quick changes easy on the ATF Little Giant... form is corrected and planed down on the bed. No time lost lifting forms from the bed and carrying them back and forth between stone and press. You can run full forms 11x17 one-up or 8½x11 two-up more economically and in many instances more quickly than on a much larger press. The Little Giant has a top speed of 3500 per hour. Handles onionskin to 4-ply cardboard... office forms, envelopes, post cards, letterheads, blotters, broadsides, in fact anything up to full 12x18 sheet. Ask your ATF Salesman or Agent for a copy of the Little Giant Press Sheet.

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Types used: Onyx, Grayda and Bodonis

A TECHNICAL PUBLICATION FOR THE MECHANICAL EXECUTIVE RESPONSIBLE FOR PRINTING PRODUCTION, EQUIPMENT AND SUPPLIES IN THE COMMERCIAL, MAGAZINE, PRIVATE PLANT AND DAILY NEWSPAPER FIELD.

Printing Equipment Engineer

LEADING ARTICLES
MAY, 1940

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• PHOTOGRAVURE — *By H. Mills Cartwright*. Covers all of photogravure's basic principles in concise and readable language. Rotogravure receives minor discussion but this is generally considered best textbook on photogravure process. Contains 202 pages, 34 illustrations, maroon cloth, size 6¼ in. by 9¼ in., $3.50 per copy, cash with order.

• TIPS ON PRESSWORK — *By G. C. Cooper*. This pocket size book measures 3½ in. by 5½ in. and contains 111 printed pages, heavy paper cover. Covers standard practices on cylinder and platen presses. Price $1.50, cash with order.

• ENCYCLOPEDIA OF LITHOGRAPHY — *Compiled by Russell L. Miles*. Besides technical information about all details of offset-lith set forth in simple language, this book contains discussions on various phases of offset-lith by well known writers. Bound in blue cloth, gold stamping. Illustrated. Size 6 in. by 9¼ in., 212 pages. Price $4.50 per copy, cash with order.

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• MANUAL OF STEREOTYPING — *By Joseph Goggin*. This 256-page book conveys latest technical information and manipulating procedure. Written by a practical stereotyper. Price $5.00, cash with order.

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From the darkroom to the pressroom, each piece of ATF equipment is designed by practical men for easy operation and high quality production at low cost. The modern ATF Precision Camera is one of the most convenient darkroom cameras ever built... all-metal construction... entirely controlled from the darkroom. ATF plate-making equipment, modern and functional in construction, includes layout and rubbing-up tables, film and plate developing troughs, whirlers and vacuum frames. ● Long famous for quality, ATF-Webendorfer sheet fed presses have many profit-making features of larger presses, are simpler and more economical to operate... web presses can be built for many types of specialized work. Alert printers are controlling the quality of work from layout to printed sheet with ATF equipment... and increasing their profits! ● No matter what equipment you are interested in, be sure it's ATF... it's sold with a money-back guarantee... your most economical buy. ATF engineers are prepared to help you lay out your plant, whether offset or letterpress. ● See your ATF Salesman or Agent, or write to

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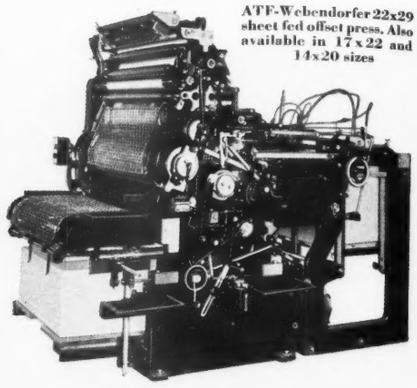
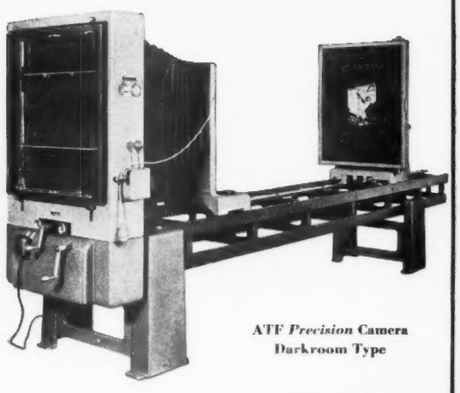
big chief • 29

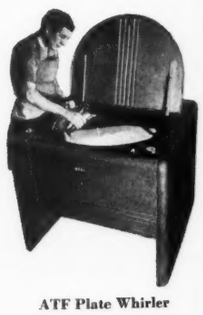
ATF-Webendorfer 22x29 sheet fed offset press. Also available in 17 x 22 and 14x20 sizes



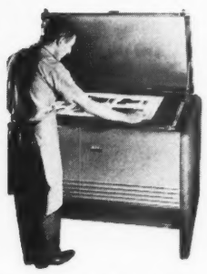


ATF *Precision* Camera Darkroom Type

ATF *Cooltop* Layout Table



ATF Plate Whirler



ATF *Vacuum* Printing Frame

ATF Developing Trough

Monotype Stylescript No. 425

DESIGNED BY SOL HESS • MONOTYPE ASSOCIATE ART DIRECTOR

This new and original script letter has many characteristics which should make it of great value to printers and typographers in the setting of display lines for advertisements and promotional printing

Exquisite Apparel
A new season is born . . . an exciting, adventuresome season. The very air is a challenge. This is the moment to select fur fashions that will give you a
NEW PERSONALITY
We cordially invite you to view our exclusive new collection of fall clothes . . . coats, suits, dresses, as well as complementary accessories and lingerie.
TAKE YOUR CUE FROM THE BIRDS
Go South!
THE SHORTEST, FASTEST AND MOST CONVENIENT WAY—"AS THE CROW FLIES"
The balmy climate and golden beaches of Florida attract more of the economically minded tourists every year, and the pleasure may be yours surprisingly easily. Transportation to Florida's tropical wonders is now a simple matter to the traveler who uses
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Seaboard Express
New Fabrics . . . FOR FALL FASHIONS
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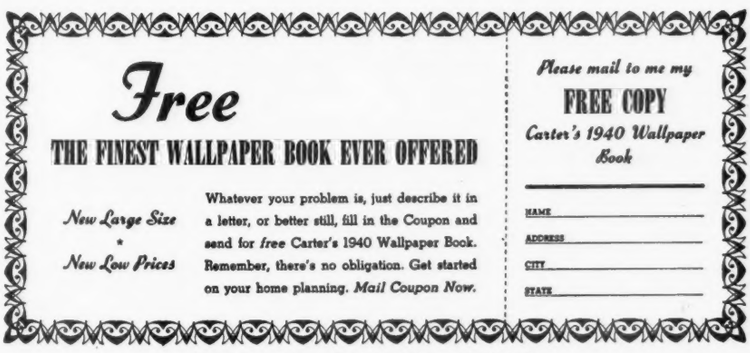
In Blue, Wine or Green
Feather-Tred Mules
So comfortable, you'll forget your feet except to see how nice they look. Smartly tailored to complement your best house coat. Beautiful Floral Print—looks and wears well. Flexible hard leather soles, 2-inch leather top heels. Quality at a price to suit everyone.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The Seybold 44" Electric Auto Spacer at Trade Bindery. Note that it is cutting and trimming a 6" x 9" wire-stitched catalog job, 7 rows at a time.

Mr. Louis Siegel

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"The 64" Seybold Precision Cutters we use for sheet work. The Seybold Continuous Feed Trough Book Trimmer we use for long runs. The Seybold Three-Knife Job Trimmer we use for the smaller run of pamphlets and books.

"You can see from the above that we are ideally equipped to give our customers the best quality of work at the lowest possible cost. In this way we can serve them best.

"This policy, carried through in all of our departments since the founding of this company, is responsible for the fact that the Trade Bindery is New York's largest and most up-to-date pamphlet bindery for the Trade."

SEYBOLD

PRECISION PAPER CUTTERS • BOOK TRIMMERS • DIE PRESSES KNIF

rgest Trade Pamphlet Bindery rimmers and Cutters Exclusively ?

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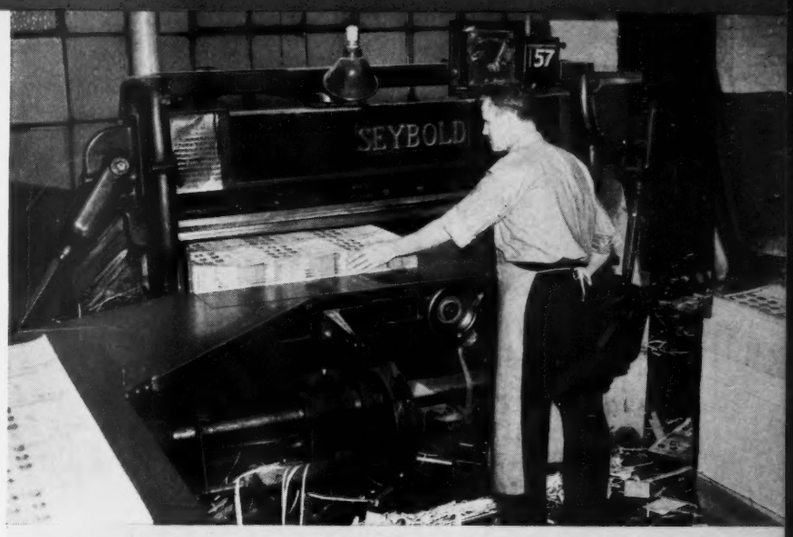
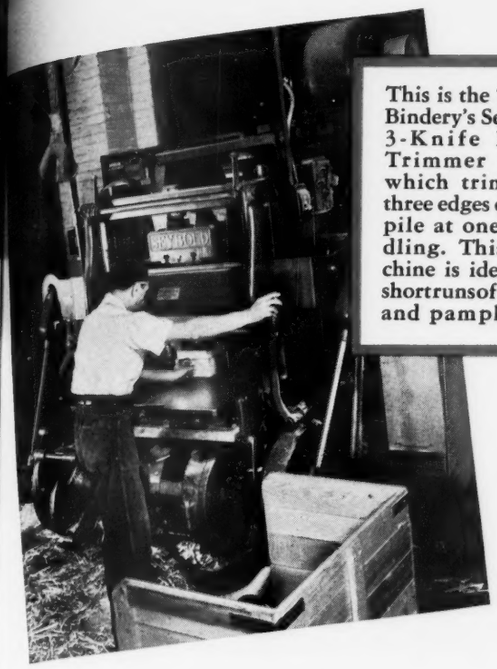
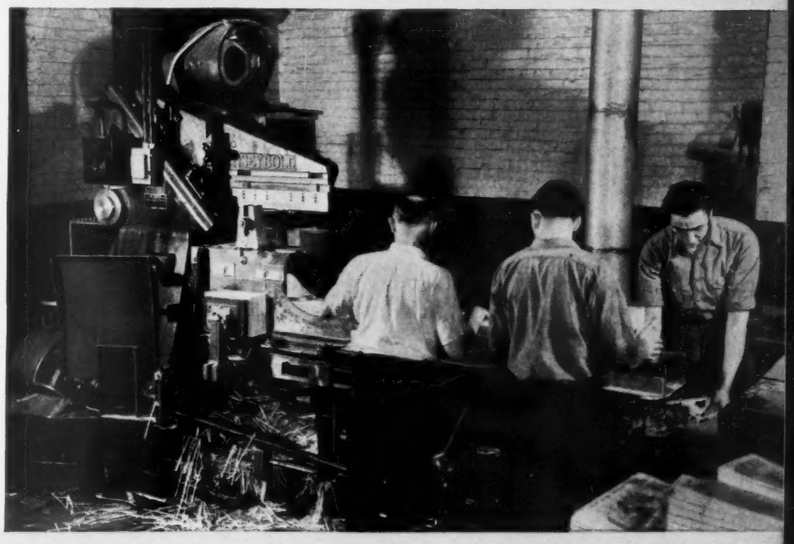


This 64" cutter (above) is one of the Seybold Precision Cutters at the Trade Bindery used for trimming and splitting large sheet work.



This is the Trade Bindery's Seybold 3-Knife Book Trimmer (left) which trims all three edges of a 6" pile at one handling. This machine is ideal for shortrunsofbooks and pamphlets.

The Seybold Continuous Feed Trough Trimmer (at right), which for trimming pamphlets, magazines, books or any other work that must be trimmed on three sides, is the fastest, accurate, most efficient machine built. Trade Bindery, Inc. finds this trimmer ideal for long runs, because of its high-speed production.



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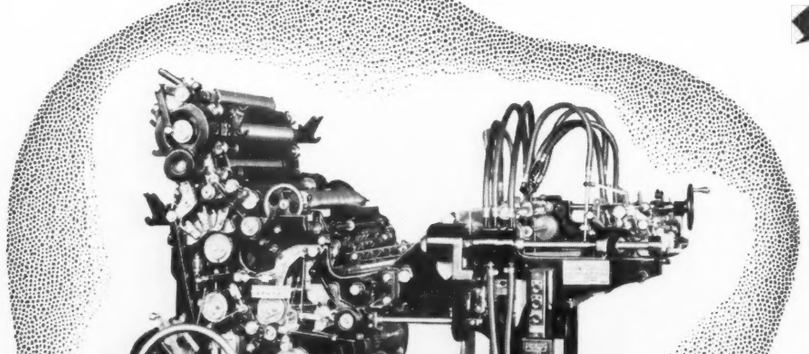

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EARLY ITALIAN PRINT SHOP

(After a painting by Tito Lessli)

From Mainz, the art of printing spread throughout the continent. In 1464 Sweynheym and Pannartz, two Germans, carried it into Italy, beginning at Subiaco near Rome. In 1469 Johann and Wendelin, of Speier, began in Venice. They were followed there by Nicholas Jenson, a Frenchman who printed from 1470 to 1480. Jenson added lower case to the capital letters he found on the Roman monuments and the design thus created has since remained standard.

METALLIC INKS

have been improved along practical lines since the Elegant Eighties — What ink and paper makers have done — Precautions for the pressroom

By **GEORGE CRAMER***

**Director of Research, Sinclair and Valentine Company, New York, N. Y.*

QUITE appropriately, the use of brilliant metallic flakes in printing and lithographic prints first became popular in this country during that gilded decade which we now refer to as the Elegant Eighties, that period before the turn of the last century when ostentation, and highly ornamented and gaudy effects in advertising — in all the graphic arts, in fact — were the rage. It was a period of "genteel" manners and stuffy tastes, when women wore ridiculous clothes (or so we think now), and men wore celluloid collars. In all the arts — especially the Graphic Arts — there was a striving for showiness, heavy decoration and tinselly effects.

We wonder today at the standards of taste and design in those Elegant Eighties. But then it was thought very refined. Such relics of that time as calendars printed in metallics, candy-box covers, Christmas cards, displays, store-signs, personal stationery, blotters, calling-cards, pennants, even magazine and book covers give us quite a sense of originality. Yet, though we wonder at the advertising and graphic arts designs then, we also realize that credit in no small degree must be given the graphic arts craftsmen of the period for some of the work they produced using metallics, even though the effects, as a whole, may not be exactly pleasing to our 1940 tastes. At least they saw the tremendous possibilities of metallic reproduction, even if they were not fully able to realize the best in them then. Perhaps the fair thing to say is that their basis of selectivity was determined by other motives.

Today the graphic artist designs his product in terms of its function — the ultimate purpose it is

to serve. Consequently, he does not employ metallic inks indiscriminately, but carefully. That this theory of functional design is based on a true and practical principle is evident, in our opinion, by the outstanding examples of metallic ink printing being turned out today from the standpoint of both design and workmanship.

Cooperation For the Printer

Hand in hand, of course, with improvement in taste and design — the selection of the type of printed product which will lend itself best to the use of metallic inks — came improvements in paper, presses and the ink itself. It would be putting the cart before the horse to say that improvements in taste or technique, alone, contributed to the growing importance of metallic ink printing. They are equally responsible. Those brilliant lustrous effects of the late 19th Century were produced by the size and dusting process. The printer and the lithographer wanted to meet the demands of his customer (there was a time in the 1880-90 period when nearly every customer wanted metallic printing, even if it was only for a placard reading "Keep Smiling"), but many times he was forced to turn down orders because of obstacles beyond his control. He kept trying, however, and finally his perseverance, plus his unyielding insistence on better metallic inks from the ink manufacturer, and a paper stock tailored to meet the special requirements of metallic printing from the paper manufacturer, produced results. Today there are a series of metallic inks on the market possessing many of the desirable features so sorely needed. That is not to say that there are not still many improvements to be made, but that old ally, Time, filled in with proper research, will, and is, producing a type of metallic ink which is both profitable and practicable for the average printer and lithographer to use with a minimum of trouble and a maximum of results.

Consult Ink and Paper Men

These improved metallic inks are the result of better papers, better powders, better vehicles, and last but not least, better production methods. To take paper, for example, the paper manufacturer, in cooperation with the ink manufacturer, has developed a paper, based on experience and research, with specific absorption qualities in order to make possible metallic prints that will be brilliant and free from dusting. The importance of the degree of penetration in stocks for metallic printing cannot be overemphasized. If it is too absorbent, then the print will flake or dust. If it is not absorbent enough, then brilliancy will be sacrificed. The point is, the printer and lithographer should bear in mind that the supplier, whether it be paper, ink, powder or production equipment, is furnishing him with products with a set of variables the controls for which the manufacturer himself has studied carefully under various operating conditions. It would be both practical and wise, therefore, to consult him.

One of the major causes of grief in metallic printing has been the use of incorrect ink and paper combinations. Much of this could be avoided if the printer were to consult his paper manufacturer and ink maker, not singly, but together. If the ink maker has samples of the stock to be used he can process his ink accordingly. Sounds like a fairly logical precautionary procedure, yet it is surprising the number of times ink and paper is bought separately, as though they had nothing to do with each other. It is not only desirable, but it is necessary to check-test a few sheets of the stock to be run with the ink to be used.

Bronze Manufacturer Has Not Been Asleep

The bronze manufacturer has not been asleep, as anyone who has seen much of the recent metallic printing will agree. The development of the new metallic powders, both bronze and aluminum, has called for many hours of research. Thousands of alloys have been investigated to find metals of minute fineness, and at the same time metals with the high brilliancy which the Graphic Arts demand. Finding new alloys made necessary new processes so that the minute metallic flakes would glisten. Progress here was stubborn and slow. Many obstinate and even dangerous production problems were solved only after the discovery and application of processes never before used by the industry. It was a relatively simple matter to pulverize the metallic particles, but to maintain the metallic brilliancy at the same time was something else. At present, progress with aluminum powders for metallic ink use has been much more rapid and greater than it has been with bronze. Aluminum powders, in many instances, have been produced of greater fineness than even the finest pigments, which is no small accomplishment. The nature of the bronze alloys employed at present in the production of bronze powders is such that several limitations are still present, yet here also many improvements have recently been made.

How Ink Maker Attacked Problem

The ink maker, due to his very close relationship with the printer and lithographer, usually gets the first call when a new effect in graphic arts reproduction is needed. Such has been the case in the production of the new and improved metallic inks. It might be of interest to trace briefly how he attacked the problem.

The ink chemist first opened his book on the study of metallic behavior in drying vegetable and synthetic oils and resins. Since many experiments

(*Continued on page 40*)

Halftone Depths for Reproduction

And a suggestion concerning halftone etching depths in plates intended for magazine rotary press plate reproduction

By J. HOMER WINKLER*

Assistant Manager, Ace Electrotype Co., Cleveland, Ohio.

A NEW SET of halftone depths for the various screens in three different tones has been recommended by Peter Schotanus in a recent issue of *Photo-Engravers Bulletin.*[1] The article makes an effective plea for cooperation of the graphic arts industries and discusses the mechanics of newspaper reproduction. The problems resulting from shallow halftones are outlined. A partial list of these recommended depths on the more frequently used screens is reproduced in the accompanying table. In the same table, for comparison, are reprinted the corresponding depths recommended by the American Photo-Engravers Association in 1914 and a few values shown in previous articles[2] on this subject.

Certainly, the 1914 figures need a critical study in the light of the many developments that have taken place in the printing industry since that time. Most engravers will agree that they do need revision and Mr. Schotanus' recommendations are in the right direction. Any set of figures for halftone depths, however, are at best arbitrary and cannot be considered as a precision standard. The limitations of methods of measurement, variations occurring in the same plate, differences in craftsmanship, etc., make it almost impossible to use such a table as a standard. This state of affairs, however, should not prevent some definite recommendations for the benefit of all concerned that would be simple enough and practicable. The use of such a table of recommendations could be seriously affected if it were too complicated or more precise than the methods of measurement employed.

It is our feeling that such a table should specify minimum depths only. A plus or minus tolerance of the figures would be confusing. A "plus" occurrence would be agreeably acceptable. Depths should be expressed in units of not less than half-thousandths of an inch. Surely every value in the table would be just as useful and more practicable if expressed in these units. The slight differences shown in some of the screens and tones of 0.0001 in. or 0.0002 in. are not significant enough to make much difference. Repeated measurements of the same halftone depression will vary that much or more.

Most engravers would probably agree that if the desired depth is obtained in the highlight areas, the middle tones and dark tones would at least equal the recommended values given in the table. Actually upon inquiry, several engravers have stated that they would probably exceed these values. This being the case, why not leave out (from such a table of recommendations of depth) the values for middle and dark tones? If the desired depth is obtained in the light tones, it can be generally assumed that a satisfactory depth will be present in the balance of the plate.

Another specification that should be included in such a table concerns the nature of the etching. This factor is almost as important in newspaper work as the depth. Halftones should be clearly etched, free from shoulders, rough and dirty bottoms and above all, free from undercutting. Mats must release easily and freely from halftones or reproductions thereof. In general, this feature of clean etching depends entirely on the skill of the engraver. *Some statement of suitability of etching should be part of any specification concerning depth.*

(*Continued on Page 48*)

VARIOUS HALFTONE DEPTHS
Depths Expressed in Thousandths of an Inch

Screen	Tones	1914 APEA	1931 Uhl	1931 ANPA and AAAA	1940 Schotanus
55	Light	8.0	6.0	7.0	8.5
	Middle	5.0	4.0		6.0
	Dark	3.0	2.0		4.0
65	Light		6.0	5.0	6.5
	Middle		4.0		4.5
	Dark		2.0		3.5
85	Light	4.6			5.0
	Middle	3.1			3.5
	Dark	2.2			3.0
100	Light	3.2 Zn 2.6 Cu			3.2
	Middle	2.2 Zn 1.8 Cu			2.4
	Dark	1.4 Zn 1.0 Cu			1.8
120	Light	2.5			2.6
	Middle	1.7			2.0
	Dark	0.9			1.4
133	Light	2.3			2.4
	Middle	1.6			1.7
	Dark	0.9			1.0
150	Light	2.2			2.3
	Middle	1.4			1.5
	Dark	0.9			1.0

Mike's Wrong—Sherlocks Are Right!

A NUMBER of our readers have made critical comments about the micrometer illustration appearing on the front cover of the last several issues of *Printing Equipment Engineer*. Naturally, we are pleased that they think enough of this magazine to take time to make these voluntary comments. The 2 in. micrometer on the original cover design was so near actual "life size" that the discrepancy between the width of the symbol and micrometer reading (symbol 1.250 in.; micrometer reading 1.125 in.) was only too apparent to those familiar with the handling of these tools.

Have we an alibi for the discrepancy? We did have. In drawing the cover, it was intended that the design be made to serve the purpose of a symbolism only, but it seems our readers would have it otherwise since the micrometer is so widely used by them in the printing industry.

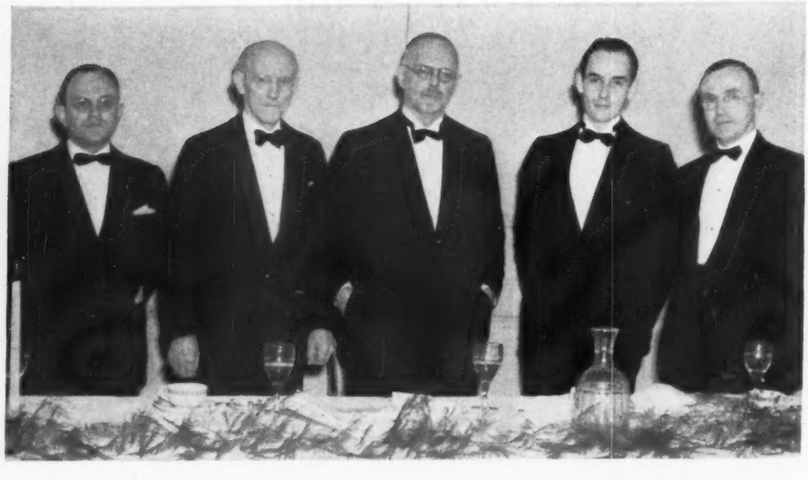
Two of our executive reader friends suggest that type-high is 0.918 in., and that the P-Double-E symbol be made 0.918 in., consequently the micrometer reading should be made to correspond. Since it is desirable to express both symbolism and practical application of the tool in this design, we'll just say that the micrometer is being used to measure the set-width of the symbol. In other words, the width of our monogram is now 1⅛ in. (1.125 in.) and the 2 in. micrometer setting now corresponds to that measurement.

We invite our eagle-eyed readers to comment upon *Printing Equipment Engineer* at any time. This is one way by which we may be assured of your interest in this magazine. With your help we endeavor to make it of the highest possible utility to you at all times.

[1] "We Request a Change"—*The Photo-Engravers Bulletin;* March, 1940: p. 12.

[2] "Do Your Printing Plates Suit Your Purpose?" by Fred F. Uhl—*Printing Equipment Engineer;* March, 1931: p. 9.

"The Complexities of Newspaper Printing"—The A.N.P.A. and A.A.A.A. Joint Committee Report—*Printing Equipment Engineer;* November, 1931: p. 13.



Banquet Photo taken at Alumni Reunion and Advisory Council Meeting, Department of Printing, Carnegie Institute of Technology, Pittsburgh, April 19 and 20. Left to right: Alex Dittler, General Manager of Dittler Bros., Atlanta; Dr. Robert E. Doherty, President of Carnegie Institute of Technology; Director of Typography Carl P. Rollins, Yale University Press and banquet speaker; John D. Andrews, Carnegie Department of Printing Senior and Toastmaster at the banquet; Glen U. Cleeton, Head, Carnegie Department of Printing.

Carnegie Printing Reunion

ATTENDED by alumni from the earliest class (1913) to the last, the Carnegie Department of Printing Alumni Reunion was held on April 19 and 20.

During the reunion, officers were elected for the Carnegie Printing Alumni Association as follows: President, O. A. Dickman, '22, Advertising Production manager, New York *Herald Tribune;* Treasurer, Robert H. Caffee, '30, Sales Manager, Republic Bank Note Company, Pittsburgh; Regional Vice Presidents, Robert M. DuBois, '34, Rochester, New York; John W. Ladd, '33, Chicago; J. L. Clark, '35, Milwaukee.

The technical discussions started with a presentation by Olin E. Freedman, President of the Production Standards Corporation, of the factors underlying the preparation of *PAR for Printers.* Clinics were held which covered standards in composition, lock-up, make-up, presswork, bindery, gravure, and photolithography.

Annual Report . . .

Submitted by A.N.P.A. Mechanical Department Manager

IN making his annual report to the A.N.P.A., Manager W. E. Wines, of the Mechanical Department, states among other activities in which the department is engaged, that a survey is being made of humidifying and air conditioning equipment in member offices. So far, about forty reports have been received. The Mechanical Department will publish a report to its members as soon as possible after replies are in.

With respect to the subject related to standardization of the shades of ink used for rotogravure printing, the Manager states:

"Mention was made in the Department's report a year ago of a project to investigate the possibility of standardizing the shades of ink used for rotogravure printing. It is gratifying to be able to report that progress has been made during the ensuing twelve months. Because the advertising agency representatives on the A.N.P.A. and A.A.A.A. Joint Committee expressed more dissatisfaction with the varying shades of brown ink used in monochrome printing than with the inks used for four-color advertising, this phase of the problem has been attacked first. After much discussion and the examination of large numbers of tear sheets, the agency men came to an agreement upon a shade of brown.

"The next move was to secure the opinions of newspaper publishers as to this recommendation. Tear sheets printed in the shade of brown preferred by the agency men have been sent to publishers of all newspapers issuing roto sections. The replies are now coming in and, if these early returns are indicative of the final vote, this shade will have the approval of the majority of the publishers. If so, the matter will be presented to the Mechanical Conference for final disposition.

"No definite action has yet been taken concerning the shades of ink used for four-color roto printing, but it appears likely that, in spite of the fact that four inks are here involved, this problem will present far less difficulty than the attempt to standardize the brown for monochrome printing."

A review of the Department's activities for the past year is given, including the important topics at the Philadelphia Conference.

In discussing the 1940 Mechanical Conference which is to be held at the Drake and Knickerbocker Hotels, Chicago, June 10, 11 and 12, Mr. Wines states that "a careful study of the records of attendance at the thirteen previous mechanical conferences emphasizes that midwestern cities bring out the largest attendance. The real growth of the conference began in 1934 at St. Louis. This has progressed to such an extent that there are now only a few cities east of the Mississippi river which have hotels which will accommodate all the activities under one roof."

Conference registration, commercial exhibits, newspaper exhibit and most of the sessions will be held at the Drake Hotel. The Knickerbocker, which is directly across the street, will be used for some of the meeting rooms. Sleeping rooms in both hotels will be available.

In speaking of the quarterly A.N.P.A. newsprint waste reports, the manager states: that the members have saved well over $1,000,000 during 1939 as compared with what their waste would have cost them if there had been no reduction since 1927. It is both interesting and somewhat surprising to note that after thirteen years of intensive effort, the newsprint percentages continue to decrease.*

*A discussion taken from a recent A.N.P.A. Bulletin was published in the March issue of *Printing Equipment Engineer.*

New New York Address

The address of the Harold M. Pittman's New York office has been moved to 441 Lexington Ave., New York. Chicago address remains at 51st Ave. and 33rd St. John Strock will continue as manager of the new quarters in New York. Mr. Strock states that expansion is the reason for removal to the new address.

Production Executive — *Refer to the 64-page goldenrod paper section of the 1940 Printing Equipment and Supplies section of Printing Equipment Engineer. This index has been compiled especially for your use. In it are listed representative manufacturers of equipment and supplies in convenient arrangement.*

CIRCLE PATTERN *for production*

adopted in new commercial printing plant of Phoenix (Ariz.) Republic and Gazette Printery — Fluorescent lighting and air-conditioning installed

By STAFF WRITER

A STEPSAVING mechanical department layout, modeled on circular pattern, features the $100,000 plant of the Phoenix (Ariz.) *Republic* and *Gazette* Printery, which has been established in new and more commodious quarters.

Reduction of lost motion to a minimum, economy of time and effort, and an orderly, natural follow-through for each job high-light the work flow plan, which was laid out by General Manager Fred O. Adams.

The "circle" which each job follows with practically no back-tracking, is from the markup man to the typesetting machines, to the hand composition, to the proofroom and revise proof to customer, back to hand composition, to the stoneman, to the press department, bindery department and to the delivery department.

The mechanical department as well as the printery office formerly were on the ground floor of another building in another location. In moving to its present quarters in a building owned by the newspapers, now known as the Printery building, every effort was made to achieve the best possible plant arrangement, while at the same time attaining economical use of space.

For sale purposes, the office of the printery was established in ground floor quarters opening immediately onto the street. The entire mechanical department is housed in the basement. Space in the remainder of the two-story, modern structure is rented to other tenants. The newspapers have separate quarters in the center of the downtown district.

Through the use of fluorescent lighting, the mechanical department is given virtual daylight illumination, colorless, free of glare and shadows, and generating little heat. The plant is equipped with year-round air-conditioning equipment, providing both summer cooling and winter heating.

An inter-office communication system links the printery office with the mechanical department.

Plant equipment includes three Linotype machines, one Ludlow, one Elrod material-making machine, one No. 3 Miehle automatic press, one pony Miehle automatic press, two Miehle vertical presses, two Kluge presses, one hand press, one Cleveland folder, two stitching machines, as well as punches, perforators, paper-cutting machines and other equipment.

Each machine in the plant is on a separate electrical conduit going through a master connection board. If one machine is out of order, the others are not affected. Also, all of the machines are powered through overhead connections. For overhaul or other purposes, it is a simple matter to move a machine from one place to another.

Tiled restrooms and showerbaths are provided.

Of the printery's 30 employes, four have been with the concern more than 20 years. They are Mr. Adams; H. B. Keith, composing room foreman; Blaine Harrell, stoneman, and Fred Crump, pressroom foreman.

Straight Line Image Reverser

The Straight Line Image Reverser announced recently by Huebner Laboratories, is an attachment for mounting in front of the lens on Photo-Mechanical Process Cameras with vertical keyborads. May be used by commercial and newspaper photoengravers, gravure and offset platemakers for making direct reverse line and halftone images and colorplate makers for relief and/or offset plates.

Makes unnecessary projected reverse positives and the stripping of film to flop images for press plate requirements on straight line cameras for photomechanical reproduction.

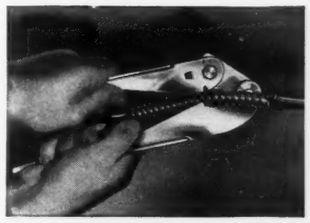
Straight Line Image Reversers can be supplied to fit any focal length lens used on photo-mechanical cameras. Metal parts are made of alloy aluminum. Reflectors are made optically flat to the degree of precision required.

The Image Reverser can be obtained for 18 in., 24 in. and 30 in. focus lenses and can be adapted to other similar focus lenses of different manufacture. In use, the device can be applied or removed within 10 or 15 sec. time.

Any size film up to the capacity of the camera and lens can be used. Image enlargements up to 24 in. square, same size on a 16 in. by 20 in. film, or the smallest film that will take a 5 to 1 reduction. Enlargements and reductions can be made with the suitable diaphragm setting in the lens using the special ghost image trap plate No. 1. Trap plate No. 2 is used for 1 to 1 size. Both are supplied with the Image Reverser.

BX Armor Cutter

Ideal Commutator Dresser Company in announcing the BX Armor Cutter for use in removing sections of the outer covering of BX Cable of any make, states that no adjustments are necessary in using the tool. It is also stated that



View of Ideal's Cutter being used to cut away a section of BX cable cover.

the cutter will trim without bending the cable; cuts cleanly without injury to wire insulation anywhere along the cable for opening into outlets and junction boxes. The hardened steel cutting blade is removable for sharpening.

Goggin With Beveridge

Joseph D. Goggin is now Sales Manager, New Products Div., The Beveridge Paper Company, Indianapolis, Ind. Formerly, Mr. Goggin was manager of Newspaper Publishers Supply Co., Chicago.

View in Phoenix (Ariz.) Republic and Gazette Printery. Production follows circular pattern.

VOL. 1. No. 32
FIVE CENTS

HARTFORD *Newsdaily*

TUESDAY
APRIL 9, 1940

NAZIS SEIZE DANES NORSE FIGHT BACK

TIMETABLE OF A WAR

APRIL 8

British tell the world they have mined Norway's coast to stop German ships with Swedish ore.

11 a. m.—In Oslo the cabinet meets in emergency session, tells the British to remove the mines or she will take "action."

12-3 p. m.—Three German ships sunk in straits between Denmark and Norway. One carried troops.

6:30 p.m.—Four unidentified warships attempt to storm Oslo, are driven off by shore batteries.

APRIL 9

1 a. m.—German troops move quietly, swiftly across Danish border land troops in Middelfart Harbor west of Copenhagen. No resistance.

1:30 a. m.—Norway declares war on Germany.

2 a. m.—Germans land troops all along the coast in Oslo, Narvik, Christiansund, Bergen and Egersund.

8 a. m.—Germans report "all quiet" in Copenhagen. Their troops are patrolling the streets.

9 a. m.—German announce Oslo occupied without incident.

10:10 a. m.—Diplomatic quarters report Allied Supreme War Council meeting in London discussing the advisability of invasion at the Nazis through Belgium, where there is no Westwall.

11 a. m.—Prime Minister Chamberlain tells the House of Commons that the British fleet is "at sea." The Allies notify Norway of willingness to extend full and Land forces being assembled.

1:45 p. m.—The German Government challenged Britain to send troops to Norway "and fight it out with Germany on Norwegian soil."

2:30 p. m.—6pm—Official reports say that the British minister to Denmark and his staff are being held as prisoners in Copenhagen by the German army of occupation.

2:45 p. m.—British foreign office advises from Norway at 7:30 p. m. (British summer time) indicate that the Norwegian Government is still resisting German invasion.

DUTCH GET OUT ARMS

Holland and Belgium trembled today as Europe's thirteenth war flashed suddenly into Blitzkrieg and threatened to engulf them.

The Dutch Government cancelled army leaves and made ready for the worst. Belgium strengthened her frontiers facing Germany and was reported to be under increasing diplomatic pressure from the British and French governments to permit the passage of an Allied army to frustrate a possible German invasion. At Brussels, King Leopold held an emergency confer

(Continued on Page 16)

RADIO HAMS NEUTRAL

The American Radio Relay League, which has offices in West Hartford, reported today that all Scandinavian short wave amateur broadcasters have gone off the air.

Only "hams" from North Europe on the air are Estonians, and their conversation with the US is limited to reports on transmission and reception. The neutrality code of "hams" forbids mentioning anything that might be of military value to a belligerent nation which would interrupt the message. Anyway, they don't talk about the war.

Germany struck with full fury today on Scandinavia, leaving Norway and Denmark broken and helpless.

Denmark gave in without a sound. Long lines of German troops marched across the border, patroled Copenhagen.

Norway, declaring war, fought back bravely. Her main cities of Bergen and Oslo were reported occupied by Nazi troops.

The government retreated to Hamar, above Oslo, and continued to direct its miniature army of 20,000, its handful of destroyers and gunboats, its 100 planes.

In London there was immediate action. Prime Minister Chamberlain spoke to the House of Commons. Large units of the British navy were moving mysteriously in the North Sea. The Supreme Allied War Council met to decide what immediate military action was appropriate.

The Allies announced their willingness to advance Norway any and all aid at once.

There were rumors that the German fleet had sallied forth to meet the Allies over the

NEWSDAILY MAP

BULLETINS

BERLIN — Hitler has established protectorate over Norway and Denmark for duration of war. Sweden has been given choice of accepting protection or invasion.

OSLO — Government regime. Military government being formed to defend country, or negotiate truce with German army.

Skagerrak, scene of the famous Battle of Jutland, and isolated naval encounters were reported underway this afternoon.

In Berlin spokesmen sought to create the impression that the war was virtually over and that Allied forces would have to fight their way into Norway and Denmark.

The Allies seemed ready to do so. In London there was talk that troops had already embarked on transport ships. There seemed an equally important move on foot to try to persuade Belgium and Holland to let the Allies use their territory as a backdoor to attack Germany, while she had her hands busy in the north.

It was not made clear whether Norway had asked the Allies for assistance, but that did not seem this afternoon to have any major importance.

"Cruel Attack"

The House of Commons Laborites and Conservatives alike, rose to cheer when Chamberlain condemned Germany's "cruel attack" and said that Britain was ready to do her part.

"The German plans for invasion of Norway and Denmark," he said, "were made and put into

(Continued on Page 16)

News from Transradio Press Service — N. Y. Times Wide World Wired Photos

Sells for Five Cents, does the Hartford (Conn.) Newsdaily which is printed by offset. This miniature reproduction is the front page of the Tuesday, April 9 issue. All type above 18 pt. is hand-set. Below that, it is composed on Linotypes.

Symposia Plan

FEATURED BY CONFERENCE

DETAILS of the 19th Annual Conference on Printing Education, sponsored by the National Graphic Arts Education Guild, to be held at the Rochester Athenaeum and Mechanics Institute on June 30, July 1, 2 and 3 have been well planned.

Featured as main events are the symposium sections, speakers from industry, and the Annual Banquet celebrating the printing anniversaries.

THE PROGRAM

Sunday, June 30

Registration.
Scenic Tour of Rochester.
"Religion and Printing," non-sectarian vesper service.
"Keeping in Touch," the IPI movie.
Visit to Printing Laboratories, Rochester Institute.

Monday, July 1

Greetings.
"Layout—Its Value to the Printing Industry," Howard N. King, Intertype Corporation.
Layout Symposia.
"School Composing Rooms," John M. Collins, American Type Founders.
Type Composition Symposia.
"Teaching Presswork," C. R. Spicher, Miehle Printing Press and Mfg. Co.
Presswork Symposia.

Tuesday, July 2

"Teaching Related Subjects," J. Henry Holloway, Principal, New York School of Printing.
Related Subjects Symposium.
"Implements for Greater Club Activity in the Graphic Arts" National Student Graphic Arts Society; Chairman, Harold H. Kirk; Speakers: George T. Hart, Sidney S. Schusterman, Edward W. Kurtz, R. Randolph Karch, Fred W. Miller.
Equipment Demonstrations, Rochester Institute Laboratories.
Annual Banquet—Celebration of 500 Years of Printing. Toastmaster, Harry L. Gage, Mergenthaler Linotype Company. Speakers: Elmer J. Koch, Secretary, United Typothetae of America; Frank Tripp, Gannett Newspapers, Inc.; Frank Smith, John P. Smith Co., Rochester; C. Harold Lauck, Guild President, presiding.

Wednesday, July 3

Symposia Reports Review—Resumé of the various symposia meeting findings, R. Randolph Karch.
Research Commission Report—"The Construction of Composite Analyses of the Printing Trades," Charles F. Zinn, Chairman.
Speakers: Frank DiGiacomo and Harold Reilly, New York School of Printing; Merritt W. Haynes.
Annual Business Meeting—Election of officers, reports.

Offset Production Operations at Hartford (Conn.) Newsdaily

In pictorial form on the opposite page are shown some of the principal mechanical operations employed in producing plates from which the Hartford Newsdaily is printed on an offset press. The tabloid consists of 16 pages, 11½ by 16 in.

1 — This is a section of the composing room showing one of three Linotypes used for setting text, heads and display up to and including 18 pt. Larger sizes set by hand.

2 — Type is made up in page form just as is done in letterpress printing, but blank spaces are provided in the form for the pictures.

3 — Making transparent proofs on a Vandercook proof press. The proofer is planing a page form, after which he will take a proof of the form on cellulose acetate sheet. As in the stereotyping process, this is as close to the press as the type will get.

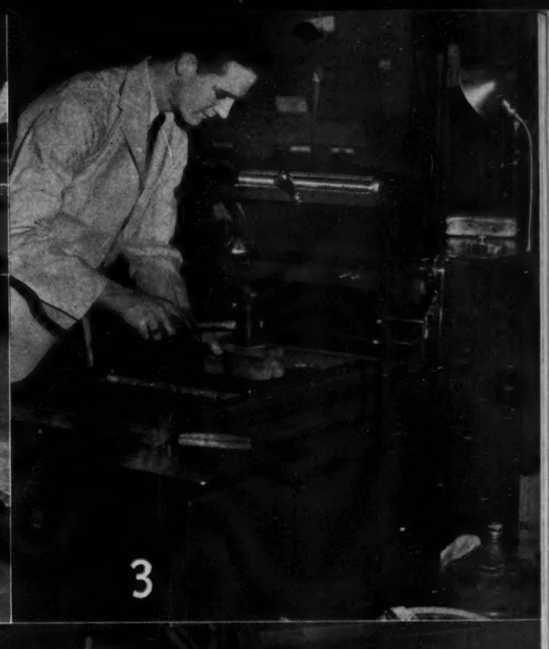
4 — At right the man is "making up" four of the cellulose acetate or transparent type proofs on a glass plate. Picture films are now stripped in the blank spaces on the transparent proofs. At left the operator is about to place the glass plate containing the four pages in the vacuum printer directly in contact with a sensitized zinc press plate. After exposure to the arc lights, the plate is developed and washed. It is then sent to the etcher.

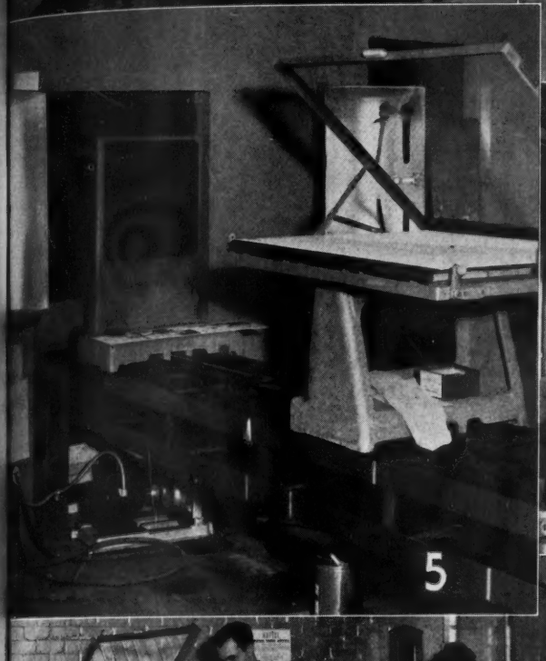
5 — The lithographic darkroom camera. This view shows the copyboard end of the camera which is outside of the darkroom. Here illustration films are made, to be stripped in later on glass plate discussed in caption for Fig. 4.

6 — At left is shown the plate whirler which is used for putting the sensitized coating on the zinc offset printing plates. At right, the operator is developing a plate which has been exposed to the arc light source as shown in Fig. 4. Plates made by Pitman Deep Etch process.

7 — Here is the ATF-Webendorfer offset printing press which produces 15,000 completely printed and folded copies of a 16-page paper per hour. Diagrammatic side view showing operation of the press appeared on page 106, December 1939 issue of Printing Equipment Engineer. As will be seen upon inspection of the illustration, this is a "two-unit" press. Each unit will print four pages upon each side of the paper simultaneously. This is possible because of the planographic method, i.e., printing from a plane surface instead of a relief surface. Each cylinder on either side of the paper serves as the "tympan" or impression cylinder for the plate cylinder on the opposite side of the sheet.

8 — Four plates which have been used for printing a 16-page edition of the Hartford Newsdaily. Each of the plates contains four pages.





WEBENDORFER
SURPRISE LANDING
SPLITS NAZI FORCE

CELLULOID PROOF *utilized for obtaining register on color advertising plates not provided with register marks at Cleveland News*

By C. L. BUTTERMORE*

**Composing Room Superintendent, Cleveland (O.) News.*

THE writer was very much interested in the article by O. E. Petry in the April issue of *Printing Equipment Engineer* in which he discussed means for registering national advertising color plates not provided with register marks by the platemaker. These discussions are always interesting. The writer is fully aware that conditions and available ma-

Proof of an advertisement taken on celluloid sheet at Cleveland News. Proofs are taken in this manner so as to register color plates which have not been provided with register marks by the platemaker.

terials in different cities always modify methods used. For that reason, the method for registering these unregistered plates at the Cleveland *News* will be passed on. This method used for registering color advertising plates was developed by the personnel of the Cleveland *News* mechanical departments.

Assuming that we receive plates for a black and one-color advertisement, we first take a proof of either the black or color plate — preferably the one bearing the greatest printing surface. This helps secure accurate register.

The proof is taken on a Vandercook proof press on a celluloid sheet 0.005 in. thick and somewhat larger than the area of the plate. We use a good grade of black bond printing ink. After the proof has been taken, the celluloid sheet is left in contact with the cut just as it has been proofed, while both cut and proof are removed from the press and taken to a work table.

With a sharply pointed prick punch and light hammer, three or four register marks are placed in the celluloid by pricking through the celluloid into the plate. No particular location is selected for the prick punch marks. The celluloid sheet is then removed and placed in contact with the other plate which has not been proofed, inked side down. Being able to see through the celluloid proof, it is an easy matter to place the proof in exact register with the other plate. Register marks are now punched through the holes in the celluloid sheet into the plate. Duplicate register marks have now been provided for both plates.

In our plant, solid stereotype base is used for mounting plates. The one doing the mounting now drills centrally through the prick punch marks in both plates. One of the plates is placed on the base in proper position and the drill point is inserted in turn through the register holes in the plate and holes are drilled partly into the base. Nails of suitable size are driven into the holes in the base and are cut off slightly at a point close to and above the top surface of the base. This permits easy placing or removal of both plates.

Frequently, in order to eliminate causes for production "jams," the color plate for an advertisement is cast in our stereotype department ahead of time. To do this, the base with color plate mounted on it is made up in regular manner in a dead page after enough type matter has been removed to accommodate the base. In locking up the form, care is exercised to see that the chase register marks match exactly. This enables the stereotype department to rout the color plate ahead of scheduled time.

Besides being able to see through the celluloid proof while registering the plates, another advantage is that the proof may be washed off just like a type form and the sheet may be used repeatedly or until the prick punch marks from previous register marks prevent further taking of proofs.

Price With Certified

Certified Dry Mat Corporation has announced the selection and appointment of Lewis E. Price as its representative in Southern territory. He will travel in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, No. and So. Carolina and Tennessee. For nine years he was foreman of the stereotype department of the Richmond (Va.) *News-Leader*. Until appointment as Certified's Southern representative he was associated with the stereotype department of the Miami (Fla.) *Herald*.

Windy Bill Flies High

"Windy Bill," states Composing Room Superintendent Ray Schoedler of the Tampa (Fla.) *Times*, "is an excellent name for a carrier pigeon, especially if it is a winning carrier pigeon." All of which is by way of telling you that Vernon Smith, *Times* linotype operator and composing room chapel chairman, is a reader of the Windy Bill stories authored by *Times* Machinist L. H. Houck, published in *Printing Equipment Engineer*. Now, just what connection does this have with racing pigeons? Simply this: Mr. Smith is a fancier of racing pigeons, and races them every week. Recently he acquired a new pigeon which had every championship attribute imaginable except a name. So Smith cogitated upon the subject and decided to christen the pigeon "Windy Bill."

Now, having been given a name by his proud owner, the next thing was for Smith's pigeon to make good his racing talents. Windy Bill was turned loose with hundreds of other strange pigeons. Like his namesake in the stories, he came in with flying colors to win the race.

A racing pigeon enthusiast is Vernon Smith, Tampa (Fla.) Times linotype operator. He recently christened a new pigeon Windy Bill after the principal character in Printing Equipment Engineer's Windy Bill stories. Then Windy Bill participated in a race with other pigeons. Like his namesake, he came in first.

Southern California Conference

By FRED J. MOYER*

*Secretary-Treasurer, Southern California Mechanical Conference of Newspaper Executives.

TOPPING all previous meetings with an attendance of 250, the Southern California Mechanical Conference held its fifth semi-annual session on Saturday and Sunday, April 27 and 28 at the Cabrillo Hotel in downtown Los Angeles. President A. F. Stanley, Mechanical Superintendent of the Los Angeles *News*, opened the conference. With the introduction of those present at the afternoon meeting, he adjourned the delegates to discussion groups to go right to work on a variety of newspaper mechanical problems and related subjects. The foremen and admen, the stereotypers, web pressmen, flatbed pressmen, machinists, and engravers all met with different experts in their various fields. At the scheduled time for adjourning these meetings, it was voted to hold the session over until the discussion was concluded.

New Policy Initiated

At Saturday night's meeting a new policy was initiated. Fifty of Southern California's most important advertising men, both retail and newspaper, were in attendance with the mechanical executives to discuss problems arising between the two groups, such as objectionable copy, etc. It was decided to hold more of these meetings from time to time between sessions of the conference with a committee from each group to promote cooperation and better understanding.

One of the many topics discussed at the conference, was the formation and adoption of a universal copy markup system. A committee was appointed to draw up a working system for use on Los Angeles Newspapers.

At the closing session on Sunday new officers were elected to head the group at the next convention. Charles Ruhmland, Production Superintendent of the Glendale *News-Press*, will succeed Art Stanley; Earl Leavitt, Culver City *Star-News* Mechanical Superintendent, replaces J. M. Hammond in the vice presidency; Fred J. Moyer, Machinist of the Los Angeles *News*, takes over as secretary-treasurer for Charles P. Medland.

During the meeting it was suggested that the conference be extended to include all California territory and various adjoining states. On a vote, however, it was decided to postpone any change for a while. The newspaper executives of northern California and neighboring states will be invited to participate at the future sessions as a result of this proposal.

As an experiment, the conference eliminated most of the long addresses and devoted all available time to discussions by the delegates. Saturday afternoon was turned over to separate group sessions. The evening meeting was used for general discussions of advertising copy, markup, engravings, stereotyping and color printing pertaining to advertising copy.

Sunday morning was given over to general topics of the whole conference, and the afternoon session featured "Tricks of the Trade" and the business meeting.

The time and place for the next convention next spring, was left to the committee on arrangements.

Fluorescent Lighting . . .

What it is and how it originated — Approximates quality of light coming from overcast sky

By L. L. STEWART*

*Van Dyke Industries, Chicago, Ill. Reprinted from November issue of Office Appliances.

FLUORESCENCE is the property of some materials giving off a light and color different from their own when illuminated. The fluorescence of light produced is usually of different wave length than the illumination responsible for it. Violet and ultra-violet rays are the best exciters of fluorescence and because of this they are the principal agents used to produce it.

Fluorescent lighting is achieved by an evacuated glass tube with a drop of mercury together with a slight amount of Argon gas sealed within. The inside is coated with a fluorescent mineral salt or chemical, and is provided with the positive and negative electrodes at either end. When the current is turned on, the mercury becomes a vapor throwing off quantities of ultra-violet that excites the coating. This coating, in turn, transforms the invisible short waves to visible daylight.

The principal benefit to humanity of this "man-made daylight" is that it is kind to the human eyes. In color, temperature, and softness, it approximates the light coming from an overcast sky which is accepted as standard for all severe visual work of modern civilization. For the first time we have artificial light that truly minimizes eye strain, which takes such a toll of human energy. Nearly one-half of the total number of adults in this country have defective eyesight[1] and much of the fatigue in this world is due to inadequate illumination. Impaired vision manifests itself in the shape of many human ailments. When such symptoms occur, the efficiency of the worker is reduced. It is reasonable to assume that fluorescent light, approximating natural daylight so closely, will help to end this widespread and needless eye abuse.

Unquestionably, the most valuable contribution of fluorescence is in providing the world with a new source of illumination. However, it is worth mentioning that the principle of fluorescence has other practical applications as well. In medicine, ultra-violet rays are directed upon human tissues and by the way these tissues react, certain diseases may be diagnosed. It is used in distinguishing counterfeit bills, since the chemicals in different inks do not respond alike. Adulteration in oils, drugs and fabrics may be detected by its use and the authenticity of old paintings can be detected from imitations. For years magicians have used these invisible rays to astound their audiences, but until the recent development of the daylight tube, its use was restricted.

Origin of Fluorescence

The discovery of fluorescence is old. It originated with an Italian cobbler. This man quite by chance discovered by directing the sun's rays through a magnifying glass upon a particular rock that the rock would give off a most unusual light and color which was not due to reflection. In 1650 the study of this phenomenon was begun to ascertain the reason why materials when activated by means of light produced this unusual illumination. Among others, Newton investigated the subject, but it wasn't until 1852 that Lord Stokes, who wrote the first paper on the subject, gave the world the true nature of fluorescence. He named it "Fluorescent" from the rock Fluorespar, which is readily excited by violet and ultra-violet light. From his time, scientists have been constantly seeking and finding uses for this wonderful discovery until today it has become a necessary part of our everyday life.

Since its humble beginning when the Italian cobbler sent his beam of light through the magnifying glass, several methods have been developed of producing ultra-violet. Stokes and others used carefully cut quartz prisms to separate the violet from the other colors in the sun's rays. In recent years, scientists have found by enclosing a drop of mercury within a quartz or glass tube, and then passing through it a current of electricity, that the mercury vaporizes and gives off a great amount of this ultra-violet radiation. This radiation is principally composed of invisible light rays, too short to be seen by the human eye but having tremendous power to excite materials to fluorescence.

[1]Seeing and Human Welfare. By Mathew Luckish, D.Sc. Williams and Wilkins, 1934.

Photo of plaque, symbolical of Graphic Arts, molded in stereo mat form and affixed to front cover of Sixth Production Yearbook.

BOOKS
RECEIVED

Sixth Production Year Book

PRODUCTION managers, mechanical executives and others intimately associated with the Graphic Arts can indeed consider a $5 investment annually in the Production Yearbook a small amount of money for so much technical information. The printing industry doesn't stand still; this is evidenced by the necessity for constant revision of the industry's technical data — knowledge which it is essential that all printing executives have in reference form if they are to keep up to date. The executive's chief concern is that he know as much as possible about the techniques of his profession. There's just too much of it in embryonic form today for him to depend upon that knowledge tomorrow.

Besides publishing technical articles about the various processes by well known authorities, the publishers of the *Sixth Production Yearbook* have done a pretty good job in overhauling current trends in the industry. The book consists of 612 pages, of which 4 out of 5 are illustrated — the book averages 2½ illustrations per page.

It is impossible to present a full list of the subjects covered in this edition, but we will state the book is divided into sections as follows: Art and Photography, Engraving and Electrotyping, Bookmaking and Binding, Paper and Ink, Printing Processes, Production Data, Typography and a Cross-Index.

Among the entirely new or revised subjects in the book are 175 Developments in the Graphic Arts, alphabetically arranged and described briefly; 56 Different Methods of Portraying a Single Subject to show wide range of art techniques and engraving treatments; 89 basic binding styles described and illustrated; 23 mechanical bindings described and illustrated; the three main reproduction techniques described and illustrated; 514 hints and solutions to common production problems; and many other subjects.

The many inserts executed by the several processes, including silk screen, are illuminating.

SIXTH PRODUCTION YEARBOOK — *1940 Edition — Published by Colton Press, Inc. Bound in khaki color coarse bag cloth mounted with white molded dry mat panel on front cover. Size, 8¾ in. by 11¼ in., 612 pages, copiously illustrated. May be ordered through* Printing Equipment Engineer. *Price $5 per copy, cash with order. (We wish to explain that the handling margin on all books ordered through us necessitates cash transactions.)*

Printing Inks

IN preparing *Printing Inks, Their Chemistry and Technology*[1], Author Carleton Ellis has remained as close as possible to the printing plant and to all of the printing processes. For this reason, the new book will be found of real value to printing executive readers of *Printing Equipment Engineer* who are interested in the application of ink to paper by any of the printing processes. Important technological changes in the printing processes (familiar to every printing executive) have created exacting new requirements for inks, which chemical research has been actively endeavoring to satisfy. In turn, the solving of new production problems brought about by the technological improvements, both in equipment and inks, has created the urgent need for a book which will be useful to printing executive, photo-engraver, offset-lith platemaker, ink manufacturer, chemist, papermaker and others in the allied crafts.

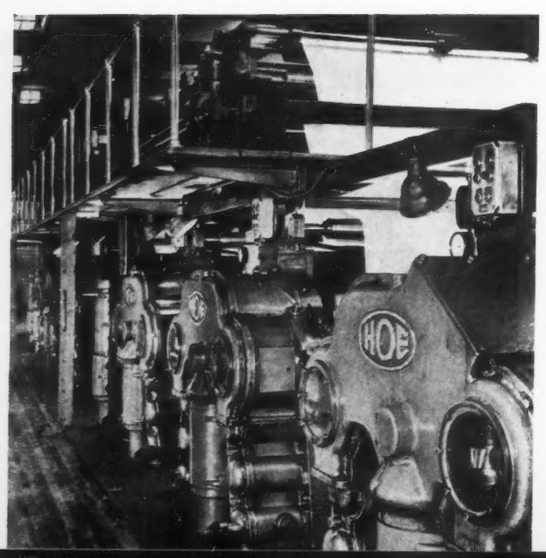
For the printer and lithographer it gives practical, usable information which can be applied directly to the pressroom; for the photo-engraver, the papermaker and many other allied crafts, it contains interesting and useful discussions of practical ink problems; for the ink manufacturer, it discusses ingredients, manufacturing methods, problems of formulation and application; for the chemist, the properties of ink ingredients are described in great detail, and in addition an extensive bibliography provides means for further research.

Publisher's statement includes the following: "Advances in the composition and methods of application of inks have gone hand in hand with those in the fields of varnish and plastics; all three were given a tremendous impetus by the advent of synthetic resins." In the author's preface it is stated: "A glance at the titles of the chapters of this volume will indicate very promptly that the field covered by this text is a very large one, and a similar brief inspection will show that the text includes the various applications of synthetic resins — such as the glycerol phthalic, ureaformaldehyde and the corresponding aldehyde derivatives of the phenols — in the production of inks adapted for printing purposes.

Table of Contents is as follows: Introduction; History of Printing Inks; Printing Ink Vehicles; Driers; Printing Ink Modifiers; Pigments; Typographic Inks —Drying-oil Types; Typographic Inks— Mineral-oil and Quick-drying; Planographic Inks; Intaglio Inks; Photomechanical Preparation of Matrices; Transfer Inks; Emulsion Inks; Special Types of Printing Inks; Printing Inks for Miscellaneous Purposes; Printing Ink Problems; The Testing of Printing Inks; Paper for Printing; Glossary Indexes.

[1] *Printing Inks—Their Chemistry and Technology* —By Carleton Ellis, Industrial Research Chemist. Cloth bound 6 in. by 9¼ in., 560 pages, well illustrated. Price $7 per copy. Published by Reinhold Publishing Corporation. May be ordered through *Printing Equipment Engineer*. (Handling margin makes it necessary to request that each book ordered be accompanied by selling price of the book.)

New Hoe Press for Binghamton Press



Another newspaper which is expanding its mechanical facilities is The Binghamton (N.Y.) *Press*. Recently the *Press* ordered a new Hoe Arched-Type Super-Production newspaper press complete with all the latest Hoe auxiliary equipment. The new press equipment will consist of six new Hoe Units, two Hoe Super-Production double former, double delivery folders, six Hoe 3-arm reels with six Hoe electrically-controlled automatic tension devices. Included in the order is a new Hoe extra heavy cast-iron substructure on which the new equipment will be erected when it is installed in the basement of the Kilmer Building, occupied by the Binghamton *Press*.

New Hoe Press will look like this.

P.N.P.A. *Newspaper Mechanical Conference held at Harrisburg covers four major mechanical departments — important technical matters discussed*

By STAFF WRITER

THE third Pennsylvania Newspaper Mechanical Conference held in Harrisburg on Monday and Tuesday, April 8 and 9, was a successful meeting in every way. Approximately 143 executives and manufacturer and supplier representatives were in attendance. Photo-engraving, composing room, stereotyping and pressroom operation were discussed freely. Howard J. Lamade of the Williamsport *Grit* was chairman of the conference arrangements committee. Abstracts of the addresses delivered by Dr. Diefenbach, Chief Research Chemist of J. M. Huber, Inc., and R. Schneider of the Sharon *Herald* will appear in an early issue. American Type Founders' Vice President, Frederick B. Heitkamp, spoke at a luncheon meeting on "Making the Most of the 1940 Market."

Jos. B. Breslin, Bethlehem Globe-Times; Harry W. Shuman, Allentown Call-Chronicle, and M. T. Alderman, Sharon Herald. Apparently, Alderman has it and Shuman is about to get it. This happened at Harrisburg P.N.P.A. Conference.

The opening session was devoted to photography and photo-engraving. The Philadelphia *Inquirer's* handling of picture copy was discussed by Chief Photographer Frank B. Johnston.

"Should I or Should I Not?"

General Manager E. W. Schwerin of the Bridgeport Engravers Supply Company, discussed the demand for pictures and the practicality of installing an engraving plant. The problem for the publisher is to decide whether he should buy his cuts from a local photo-engraver or whether he should install his own engraving plant. Service, quality and price are the determining factors. In considering the price factor, the publisher generally can make a contract with a local engraver whereby he can purchase cuts as cheaply as he can produce them and not be bothered with the details of running an engraving plant. If the volume is not large, considerable money can be saved by purchasing engravings under this plan. The speaker stated: "Engraving like any other commodity is subject to a difference in quality — and you generally get what you pay for." If a publisher is getting service from his photo-engraver, he stated, he would advise him to leave well enough alone and follow the example of several metropolitan newspapers. Outside of the service, quality and price factors, the only reason a publisher would want to open a photo-engraving plant would be because of pride of ownership. Some publishers have opened plants for this reason alone.

Minimum requirements for successful operation of a photo-engraving plant, according to the speaker, are a capital expenditure of $3000, 650 sq. ft. floor space and weekly production of 1200 sq. in. of finished work. The successful operation of such a plant hinges upon securing a satisfactory man to operate it, inasmuch as the photo-engraving art is divided into several branches.

The speaker predicted that within a few years all zinc will be back-coated because sales have been increasing at such a rapid rate.

M. L. Detwiler, Lancaster Newspapers, Inc.; Geo. T. Wegemer, St. Mary's Daily Press, and Chairman Howard J. Lamade, Williamsport Grit, consider the P.N. P.A. program.

Composing Machine Maintenance

M. L. Detwiler of Lancaster Newspapers, Inc., presided at the Monday evening session. He introduced Composing Room Superintendent C. P. Merkle of the Washington (D.C.) *Star* and R. D. Shaeff, Chief Inspector of the Lanston Monotype Machine Company. Messrs. Merkle and Shaeff collaborated in a discussion on maintenance of composing room equipment.

Mr. Merkle, at the request of Mr. Shaeff, explained in detail the composing machine maintenance schedule used by the machinist in the *Star* composing room. Supplementing discussion of the maintenance system, he said that a semi-annual inventory is taken of all matrix fonts. Fallen matrices are gathered twice a day and redistributed. Twenty-seven spacebands are supplied each line-composing machine.

In answering a question by Mr. Merkle, Mr. Shaeff stated, among other things, that vibration of the floor or foundation upon which a machine is resting is one of the worst enemies of sound equipment performance. Mr. Shaeff also stated it is plain foolishness to economize on oils and greases. Added he: "When you save nickels on oils and greases you short-weight yourself on machinery life."

Mr. Merkle described the ad stands installed in the *Star* composing room some time ago. He stated that in these stands space is provided for practically everything a printer needs to assemble an ad. In four of the stands small saws have been provided so as to eliminate steps while working on grocery ads.

Composing Room Lighting

Considerable discussion took place on means for lighting the composing room. Fluorescent lights suspended about 7 ft. from the floor were recommended as suitable for composing room general illumination. The statement was made that the white fluorescent tubes emit

Supt. F. H. Winch, Pittsburgh Post-Gazette; W. A. Hawthorne, Valley Daily News, Tarentum, and J. R. Cublenson, Sharon Herald, at P.N.P.A. Newspaper Mechanical Conference.

25% more light than do the daylight tubes. It was also claimed that by mounting two small tubes rather than one long tube, the double image from moving parts is eliminated.

In the discussion, numerous executives reported the use of Mohr Lino-Saws in their composing rooms and stated they would not be without them.

Emphasis was placed on one item having relation to composing room management. Care should be taken to see that early copy is the copy to be completed first. This will encourage advertisers to get their copy in early. Some papers are giving discounts for early copy to avoid the peak load on Thursday.

Solving Food Store Composition Problem

Peter J. Burton of Mergenthaler Linotype Company, discussed food store advertising. He suggested to mechanical executives that in order to attack the problem so far as their own composing rooms are concerned, a sort of survey be made of the composing room equipment as follows: (1) Determine if work can be handled on present equipment. Perhaps the equipment is good but type faces are not at hand or are not placed to best advantage. (2) Set up sample combinations of composition having eye appeal that you believe can be set economically on your present composing equipment. (3) Make up specimen ads, 1 to 4 columns, showing how various display sizes will look in combination with smaller sizes. If trouble is experienced in setting the suggested specimens you will be in a position to determine the weak spots in your equipment. On all specimen proofs provide a key number for each size or combination for identification purposes. This procedure will enable the advertiser to specify which style he likes and will also give him some idea of the number of items that will fit into a given space. This plan includes the cooperation of the advertising department so that the persons writing the advertising copy will have the styles at his disposal.

The speaker stated that the equipment manufacturers have done a good job in meeting the current trend in food store ad composition. Most of this special type of composition has been accomplished by hand-setting, cutting-in or by the use of numerous logotypes. He distributed proofs of food store composition executed with special matrices now available, the lines for which were easily and completely produced on line-casting machines.

The Spectrograph

Sales Manager A. M. R. Cherrington, Jr., and Chief Metallurgist Edward J. Ferguson of the North American Smelting Company, Inc., discussed "Control and Amount of Dross and Processing It." In Mr. Ferguson's discussion, he described the Spectrograph as used to give the answers to perplexing problems. In explaining the instrument in non-technical terms to his hearers, Mr. Ferguson stated that the Spectrograph is, in effect, a camera which looks into your metal and takes a picture of what it sees — gives a photographic plate. Said he: "It operates on the theory that any chemical or metal will give out light if it is given a sufficiently hard jolt of electricity or heat, and that the light given by any substance carries that substance's distinct trademark with it in the form of a wave length of light."

He illustrated the value of the instrument in the analysis of type metal by stating that recently several samples of line slugs were received from a large newspaper. In each slug were several imperfect letters — never the same letter twice in any slug. Careful chemical analysis in the laboratory showed the metal to be satisfactory, but did not solve the problem of the imperfect letters. By means of the Spectrograph a picture of the face of each letter in the line slugs was taken and the analysis indicated a high percentage of zinc in every imperfect letter. Investigation showed that zinc routings had been permitted to get into the metal for remelting. Instead of melting and dispersing throughout the alloy, the zinc remained in restricted areas throughout the metal much like raisins in a rice pudding.

Printing Rollers

H. Howard Colehower, jr., of the Godfrey Roller Co., discussed printing rollers. Referring particularly to rubber and synthetic rollers, Mr. Colehower said: "Do not believe that a rubber or synthetic rubber roller after being put on your newspaper press can be forgotten. I have seen too many cases where executives, after installing rubber rollers, believed their roller troubles to be over, only to find the rollers had to be ground and polished, had to be reset occasionally and did not last forever."

He also discussed composition rollers, stating that the manufacturer of composition rollers has made great forward strides to improve his product.

"The perfect roller," said Mr. Colehower, "would be one which has tack and resiliency, one that need not be reset and which will not become soft when running at high speeds, and above all, must produce good printing. This type of roller will be produced some day but as yet there is no roller on the market in which have been incorporated all these qualities."

Stereotype Molding

Representative Jack Kearns of the Burgess Cellulose Company, stated that the best stereotype molding combination to use is the one that gives the best results.

"It would seem," said he, "that the most important member of any molding combination is the cork blanket. The stereotyper who brags about how long he has used a cork molding blanket and how many molds he has made from it is making a big mistake. A dead, flabby and lifeless cork will destroy the appearance of any paper. If just one stereotyper goes home after this meeting and tries putting on a new cork I'll be satisfied with my part in this program.

"There are three important fundamentals in molding — resiliency next to the mat, resistance and slippage. No one of these three fundamentals can be picked out as the most important. You can see that by using an old, worn-out cork that the most important thing of all (good printing) is sacrificed. A correct molding combination is resilient to the point where the mat is permitted to go down sufficiently to get the proper depth in the type and halftone, and resistant enough to protect the mat after it once reaches the depth."

The speaker stated he hoped no one would be disappointed when they were apprised that he didn't intend to give a "perfect molding combination," because, "If I did I would be sticking out my neck." He then discussed several types of unusual molding combinations, among which were (1) Hard cork and two slipboards; (2) Cellophane on halftones, creeper, hard cork and fibre; (3) Cellophane all over the mat, cork and fibre; (4) Canvas-covered cork, felt and fibre board; (5) Muslin, cork and steel.

Bumping-Up Cuts

One of the most productive discussions at the conference dealt with methods of bumping-up cuts with advocates of both the manila proof underlay and back-etching voicing their sentiments. It seemed that the most popular method consisting of bumping-up with a 0.007 in. manila proof underlay trimmed back 1/8 in. from the edges of the cut and with all highlights cut out. The cut is then placed on a steel base at least 6 pts. on any side from column rules and captions. Rubber cement is used for cementing the proof to the underside of the zinc cut.

On The March..

...and in step with better business,

the following publishers and others have recently purchased

Binghamton Press

Cleveland Plain Dealer

Condé-Nast Publications

Diario de la Marina Havana

International Color Printing Co.

Miami Herald

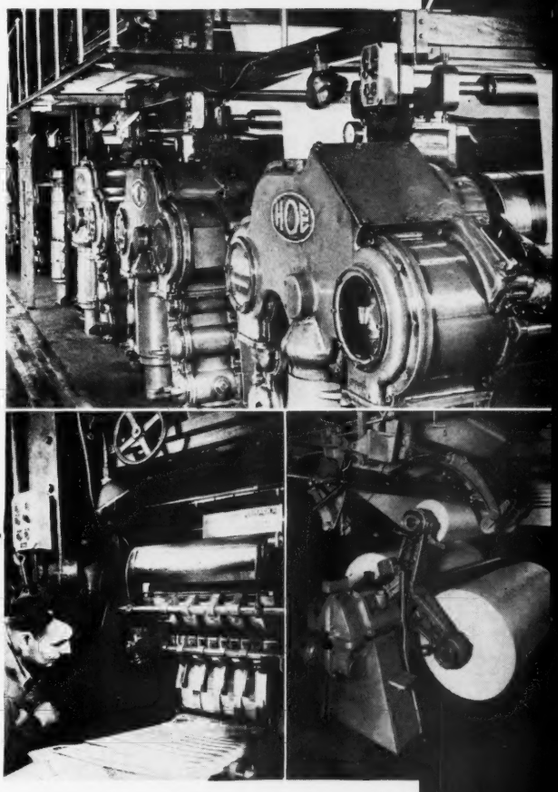
Neo-Gravure Printing Co.

Philadelphia Inquirer

San Francisco Chronicle

Spokesman Review

Syracuse Post-Standard



67
HOE SUPER-PRODUCTION, SUPER-SPEED NEWSPAPER, MAGAZINE AND ROTOGRAVURE
UNITS

17
HOE SUPER-PRODUCTION, NEWSPAPER AND MAGAZINE
FOLDERS

37
HOE THREE-ARM
REELS

41
HOE ELECTRIC AUTOMATIC
TENSIONS

31
HOE FULL-SPEED
PASTERS

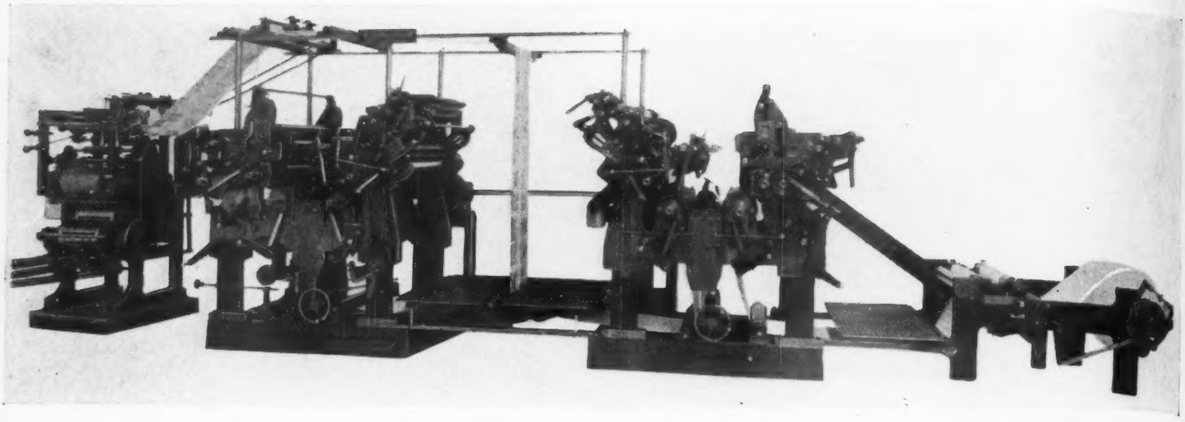
9
COLOR ATTACHMENTS

There's little that words can add to a record like this. It offers conclusive proof that progressive publishers and printers, who "see all" before they make equipment decisions, find the greatest return from their investment in Hoe Equipment. They enjoy all the operating benefits of the latest Hoe mechanical improvements and rely on the unchanging traditions of superior design and construction which are incorporated in every piece of Hoe Equipment.

R. HOE & CO., Inc.

General Offices: 910 East 138th St. (*At East River*)
New York, N. Y.

BOSTON SAN FRANCISCO CHICAGO BIRMINGHAM



View of ATF-Webendorfer Multi-Color Web-fed Offset Printing Press – 12,000 cyl. rev. per hr.

EQUIPMENT *and Supplies*

Multi-Color Web-Fed Offset Press

A web-fed offset press for periodical production is announced by the Webendorfer Division of American Type Founders. The first of these special ATF-Webendorfer units for multi-color printing is now being installed in the production department of a monthly magazine of substantial circulation.

The press is said to have a running speed of 12,000 cylinder revolutions (*i.e.*, impressions) an hour, is constructed to print two colors on each side of the web or four colors on one side of the web.

The equipment is built to produce publications of two different sizes. The construction is such that the cylinders for one size periodical can be removed and another size substituted. The inking mechanism is on a sliding carriage, adjustable to take care of both sizes of cylinder. The same arrangement applies to the damping motion.

The press delivers into a magazine folder which will fold 6⅞ in. by 10 in. maximum and 6⅞ in. by 7 in. minimum. The press will deliver two 8 page signatures or one 16 page signature, automatically folded, or if desired will deliver in flat sheets.

Automatic lubrication to all main bearings and to the folder is provided.

Improved Stereotype Platemaking Equipment

Wood newspaper Machinery Corporation announces that as a result of the development of the vacuum attachment to Autoplate machines (used for casting stereotype curved plates) and the Heavy-duty Autoshaver (used for trimming the resultant plates) the many faults which commonly have occurred in the production of curved stereotype plates on its former equipment, in one way or another, have been eliminated, so that as perfect plates as possible may now be produced on the new equipment.

Autoplate improvements are noted as follows: (1) Mat Creep is prevented because vacuum holds the mat firmly throughout the casting operation. Important in making color plates and for narrow margins. (2) Hot Spots in plate face are avoided through the use of additional cooling provided by vacuum because the mat is cooler even after many plates have been cast. (3) Light spots, usually caused by buckles which persist, in spite of proper scorching, because of high moisture content commonly used in mats where great shrinkage is required are eliminated by application of vacuum. (4) Sharper and blacker solids in type matter and more uniform printing of cuts is assured by use of vacuum. Air which is likely to be trapped in the mold is drawn out through the mat, permitting the molten metal to fill the dots in cuts, as well as large areas in the solids. Harder press packing may be substituted when vacuum-cast plates are used.

Manufacturer announces these mechanical features in the new Heavy-duty Autoshaver which is used for trimming curved stereotype plates to proper dimension: (1) Uniform thickness of the plate is maintained permanently through the use of a solid frame which constitutes the arch in the Heavy-duty Autoshaver. Mounting knife bar in preloaded roller bearings likewise insures permanent alignment between shaving knife and arch. (2) Accuracy in the plate is maintained through the use of two knives in the Autoshaver — one a roughing knife and the other a finishing knife. The distance between the two knives is such as to permit the plate which has been rough-shaved to adjust itself so that the finishing cut will produce the desired accuracy throughout the area of the plate. (3) Open-page plates may be had of the same thickness as ordinary plates because means are provided for shaving such plates twice, as desired. (4) Chip accumulation is avoided by means of automatic lubrication of the shaving knives and new location of the trimming tool. (5) Imperfections such as metal dust, etc., sticking to the face of the plate are removed by an air blast before the plate enters the arch. Air also removes excess water when the plate leaves the shaver. (6) Better handling of plates is provided through the use of flat bars for clamping the plate in the arch. (7) Burnishing of the printing face is obviated through the use of the extra heavy pinching and clamping mechanism. (8) Power — The motor is geared direct to the knife bar and is mounted under the receiving platform for protection. (9) Maintenance — All adjustments are on the outside of the machine where they are covered by suitable guards and are easily accessible. (10) While the Heavy-Duty Autoshaver is 1¼ tons heavier than the Standard Autoshaver, its overall dimensions are the same.

Lonn Newsprint Sprinkler

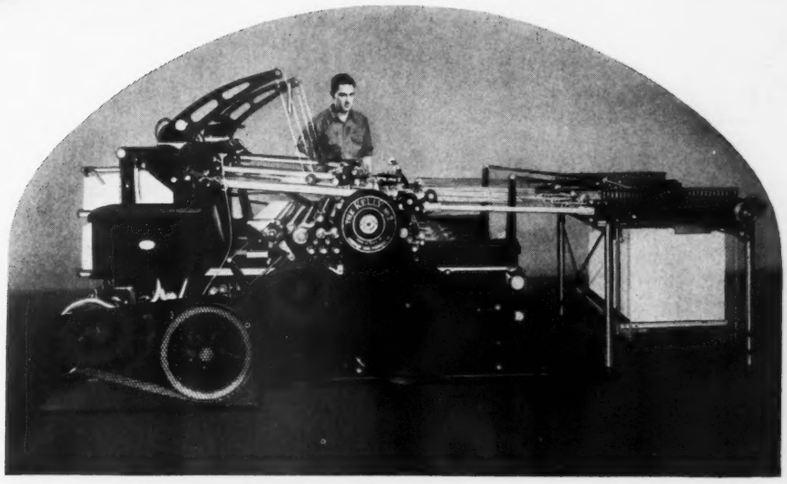
Lonn Manufacturing Company states its Lonn sprinkler may be used for spraying the ends of newsprint rolls with water previous to unwinding the rolls on the press to reduce static and improve paper behavior while printing.

The device consists of a cylindrical section ¼ in. diam. (standard type fitting

size) by 4¼ in. which is attached to a section of Duprene hose. By flexing the hose an elongated section of the valve extending backwardly into the hose is also flexed with the hose which opens the valve in the sprinkler device to emit a dew-like spray having a radius ranging from 3 in. to 8 in.

The sprinkler is constructed in three parts (1) Brass head, (2) Section of Duprene hose and (3) the stem or valve. These parts assembled into one unit are attached to water supply. Water pressure supplies the force necessary to operate the sprinkler — the pressure opens and closes the valve.

Buy yourself a No. 2 Kelly ← ... and stop wishing!



How many times have you wished you could stretch your press just a few inches so you could run 17x22 two-up . . . and how many more jobs could you have run economically if you could have printed 22x34 double folio, 22x28 the popular double cap sheet, 20x26 cover stock, or half sheets of 35x45 on your present equipment? You can handle all of them on the No. 2 Kelly with its full 24x35 sheet size . . . and it's within the same price range as 19x25 presses! • Without taxing the No. 2 Kelly to capacity, you can print 8 pages 8½x11 on one form. Jobs you would otherwise run on larger, slower and more costly automatics . . . can be run on No. 2's with full ink coverage and increased profits. Many of the world's finest printers swear by their No. 2 Kelly's ideal size and ability to turn out high quality work . . . and find them just as profitable for run-of-the-hook work. So stop wishing . . . ask your ATF Salesman for a five-color No. 2 Kelly press sheet *today* . . . or write your nearest ATF Branch office.

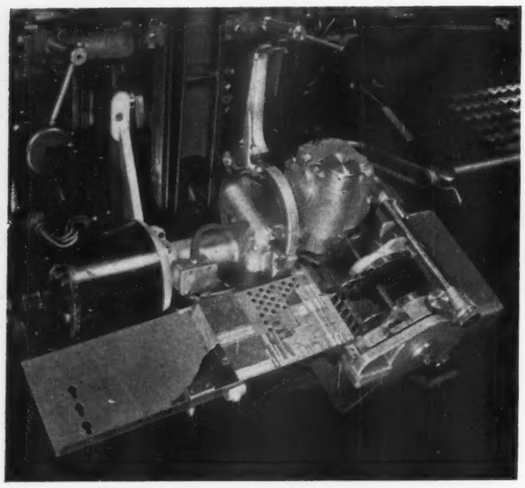
A·T·F

Other famous ATF Presses: No. 1 Kelly, 17x22 Kelly, Kelly Clipper, Little Giant, and the ATF-Webendorfer Offset Presses

AMERICAN TYPE FOUNDERS

200 Elmora Avenue, Elizabeth, New Jersey • *Branches in 23 Principal Cities*

Types used: Onyx and Bodonis



View of Curle Slug Corrector for Linotypes and Intertypes. Device automatically saws slugs to predetermined length, squares both ends, mills rib side to parallelism with constant side of slug, and deepens quadded areas, before delivery into slug galley.

Curle Slug Corrector

For attachment to Linotype and Intertype line-composing machines, Curle Manufacturing Company states the Curle Slug Corrector has been improved so that slugs will receive several automatic finishing operations after delivery to the device by the ejector, as follows: (1) Trimmed on the rib side to make the ribs parallel with the smooth or constant side of the slug body; (2) All burrs and the type shoulder (draw) are removed from the top of the smooth or constant side of the slug by a side knife contained within the Corrector; (3)The left-hand or variable end of the slug will be trimmed to pica measure; (4) The right-hand or constant end of the slug body will be squared; (5) the quadded portions of the slug will be deepened to prevent the low areas printing on the press on measures from 6 to 30 picas.

It is stated that the device may be attached to 30-pica Linotypes or Intertypes in approximately 1½ hours without drilling new holes or mutilating existing machine parts.

As the slug passes through the device after delivery by the ejector blade, a side trimmer mills the rib side parallel with the smooth or constant side. This side cutter is continuously adjustable from ½ pt. under to ½ pt. over the standard measurements. This adjustment is made according to the necessity for trimming slugs so as to get more or less lines within a given space. A point setting adjustment is provided to accommodate slugs from 5 to 36 pts.

The low slugging device contained within the Corrector automatically deepens (approximately an additional 1/16 in.) the quadded portions either inside or at the ends of the slug to as short a space as 3 picas.

By adjustment of a length gauge, (visible to the reader in lower right-hand corner of illustration) slugs are sawed and squared to any measure ranging from 6 to 30 picas. A micrometer slug length adjustment is provided for this purpose.

As will be seen in the illustration, the Corrector galley is mounted in the same position and by similar means as the standard galley regularly supplied with the machine to which the Corrector is to be attached. Motor for driving the various cutters is an integral part of the mechanism.

Further information may be obtained from Curle Mfg. Co., direct or in care of *Printing Equipment Engineer*.

Gage and Bennett Speak

Harry L. Gage, Mergenthaler vice president, presided at a meeting of the Advisory Council on Graphic Arts Education, at Pittsburgh, April 19 and 20. Department of Printing at Carnegie Institute of Technology. (Mr. Gage organized and was the first head of that department.) On May 13, Mr. Gage addressed the Toronto Graphic Arts Association, Toronto, Canada, on *The Significance of Printing*, and May 18 he will talk on *Letterpress Printing* at the Fifth District Conference to be staged by the Cleveland Club of Printing House Craftsmen.

Paul A. Bennett, in charge of typographic layout with Mergenthaler Linotype Company, spoke on the *Peter Piper* book in Worcester, Mass., April 17, and in Newark, N. J., May 9. At Worcester Mr. Bennett addressed the Worcester County Club of Printing House Craftsmen, and at Newark the Newark Club of Printing House Craftsmen.

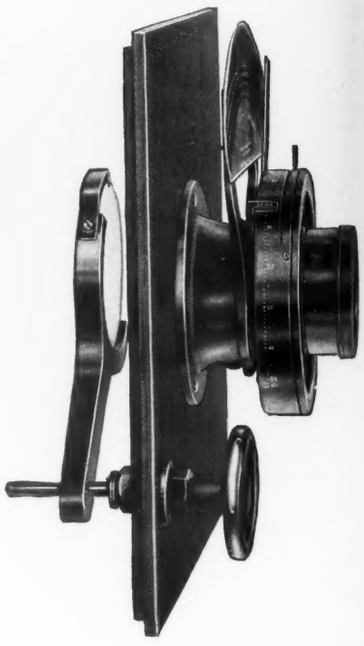
Halftone Screen Compensator

A new development of The Douthitt Corporation is a device called the Halftone Screen Compensator which is used to make combination halftone and line negatives to exact dimensions. The compensator is attached through the lensboard with a bracket arm to which the compensating glass is attached. This bracket arm is moved in and out of position behind the lens with a small hand wheel which extends in front of the lensboard beside the lens.

When making halftone and line negatives that must fit exactly such as stripping-in or combination, both negatives must be made in the same position in the camera, and as the light traveling through the screen refracts the light so that it leaves the screen at a lesser angle than it entered the screen, the negative made through the screen is slightly smaller than a negative made without the screen in the camera. From this it is evident that some compensation must be made so that both negatives will be the same proportion. In the past, there have been several methods of doing this. One was to move the rear section of the camera forward when making the line negative which would change the size, but this would also throw the negative slightly out of focus. Another practice was to remove the screen and place a plate glass approximately the same thickness as the screen in the screen holder in the camera.

With the Douthitt Screen Compensator it is only necessary to turn the small wheel in front of the lensboard to place the compensator between the lens and negative. The light passing through the glass compensator is refracted in the same degree as was refracted by the screen, thereby making both halftone and line negatives the same proportional size.

In thickness the glass compensator is made to correspond to the average

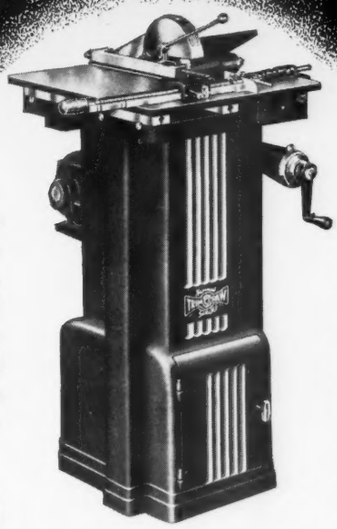


thickness of standard screens and while the different screens may vary slightly in thickness, the compensator may be used with any number of different screens within certain limits as the effect of slight variations in thickness is so infinite that it cannot be detected.

Good highlighting effects may also be obtained with the compensator, by first making the halftone negative, moving the screen out of position and then giving a slight exposure through the compensator with a lens stop slightly smaller than the detail stop that was used.

HAMMOND *Gliders*

IN EVERY STATE



Printers in every state in the union have piled up a record of preference for Hammond Glider TrimOsaws . . 1200 Gliders have been installed since we presented it only four years ago. An outstanding record . . won through advanced features of design, construction and operating efficiency.

Actually obsoleting all other saws, its wide acceptance has proved the vital importance of precision sawing everywhere.

Your sawing is an accuracy bottleneck. With obsolete equipment you lose time in sawing, make-up and press time. Stop this loss by installing a Glider . . . guarantee yourself better, lower-cost production.

Without obligation, we will send literature, prices and trade-in allowance. Write today.

★ *Hammond Machinery Builders* INCORPORATED ★

KALAMAZOO, MICHIGAN, U.S.A.

1604 DOUGLAS AVENUE

Celebrate Two Birthday Anniversaries

Executives and employees of Cleveland's Harris-Seybold-Potter Company celebrated the birthdays of two of the most prominent members of its organization in April.

In recognition of the 80th birthday of Alfred F. Harris, founder and Chairman of the Board of the company, a booklet executed by offset was published. The booklet extended greetings from Employes and Fellow Workers. Tribute is paid to the pioneering spirit of Mr. Harris.

In addition to a portrait of Mr. Harris, a picture of the first Harris single-color offset press is shown in contrast with a Harris four-color offset press. A picture of the original Harris factory is also shown. This building in Niles, Ohio, was the birthplace of President McKinley.

On April 13, H. A. Porter, Vice President in Charge of Sales for the Harris-Seybold-Potter Company, celebrated the 34th anniversary of continuous and uninterrupted service with the company. Mr. Porter, now 53, first entered the employ of the Harris Automatic Press Company in Niles, Ohio.

Coincident with Mr. Porter's celebration was held a sales and advertising conference at the Cleveland offices of the company and at Hollenden Hotel. The conference of representatives extended over a three-day period.

Program for Iowa Newspaper Mechanical Conference

President Guy J. Chappell, of the Iowa Daily Newspaper Mechanical Conference has announced completed arrangements for the fourteenth annual meeting of the Iowa Daily Newspaper Mechanical Conference which is to be held at Hotel Martin, Sioux City, Iowa, on Sunday, Monday and Tuesday, May 19, 20 and 21. The program (not including the entertainment features) is as follows:

MONDAY, MAY 20, 1940

Morning Session—9:00, Grand Ball Room.

Meeting called to Order, President Guy J. Chappell.

Address of Welcome, John C. Kelly, Managing Editor, Sioux City *Tribune*.

Response, Guy J. Chappell.

Presentation of "Key" to Sioux City, Hon. Mayor David F. Loepp.

Response, Guy J. Chappell.

Benefits gained by Mechanical Executives attending Mechanical Conferences, E. J. Kahler, General Manager, Argus Leader, Sioux Falls, S. D.

"Offset Printing—Its Possibilities for the Daily Newspaper," James H. Gregory, E. G. Ryan & Co., of Chicago, Ill.,

"Ink" as used by the daily newspaper —Guy Burns, Technician, Geo. H. Morrill Co.

Engraving Session—Room 220, A. P. Ashton, Chairman.

D. D. Curriden, Engraving Superintendent—Minneapolis Star Journal, will discuss "Engraving Problems" of the daily newspaper.

National Steel & Copper Plate Co., Chicago, will be represented by Louis A. Steinmiller.

TUESDAY, MAY 21, 1940

Morning Session—9:30, Joint Session, Grand Ball Room.

"What's New in the Daily Newspaper Printing Field," Mac Sinclair, Editor of *Printing Equipment Engineer*."

Reports by chairmen of group meetings of topics which were discussed that are of interest to the general conference.

Open Discussion—What is New in Equipment and Methods.

Afternoon Session—1:00, Grand Ball Room—Reports of Committees; Selection of Next Conference City; Election of Officers; Good and Welfare of Conference; Adjournment.

Webendorfer-Wills Division of the American Type Founders.

Afternoon Sessions—2:00

At this time the conference will meet in three group sessions for the discussion of problems of special interest to the various departments.

Composing Room and Machinists—Grand Ball Room, Charles H. "Tod" Bleuer, Chairman.

At this meeting representatives of composing machine companies will appear before the group and explain the various new features of their equipment.

The Mergenthaler Linotype Co. will be represented by Clifford C. Holly. The Ludlow Typograph Co. will be represented by Clay A. Wellman. Walter Severin will represent the Intertype Corporation. The Lanston Monotype Machine Co. will be represented by Geo. H. Hanson. The Linograph Corporation will be represented by C. E. Murray.

Stereotype and Press Room—Clubroom, Earl Caldwell, Chairman.

The Questions and Answers to the problems of the Stereotype and Pressroom will be the topics before this group.

IPI Color Guide Contains 108 Colors

A new, more comprehensive Color Guide is being distributed by the International Printing Ink Division of Interchemical Corporation. It is not an ink specimen book. It is intended to serve as a practical reference chart (108 colors shown) for use in selecting colors and appropriate color combinations. The book is bound in cellulose cover with white plastic binding. Cover is a reproduction of a Kodachrome transparency. The Guide is 10 in. by 12 in. and fits into a standard file cabinet when folded. When open, it may be hung on the pressroom wall like a poster. Transparent acetate covered index tabs are provided for quick color reference.

Intertype Matrix Cuttings

Announced by Intertype Corporation this month are additional combinations to four existing series of Intertype faces shown below.

THIS PARAGRAPH was composed on the Intertype in the six point size of Intertype Bell Gothic, made in combination with **Bell Gothic Bold** 12345 **12345**

6 Point Bell Gothic with Bold

THIS PARAGRAPH is set in the six point size of Intertype Cairo Medium, made in combination with Cairo Heavy 12345 **12345**

6 Point Cairo Medium with Cairo Heavy

THIS paragraph is set in the seven pt. Intertype Regal No. 2A duplexed with **Cairo Bold No. 2** 123456 **123456**

7 Point Regal No. 2A with Cairo Bold No. 2

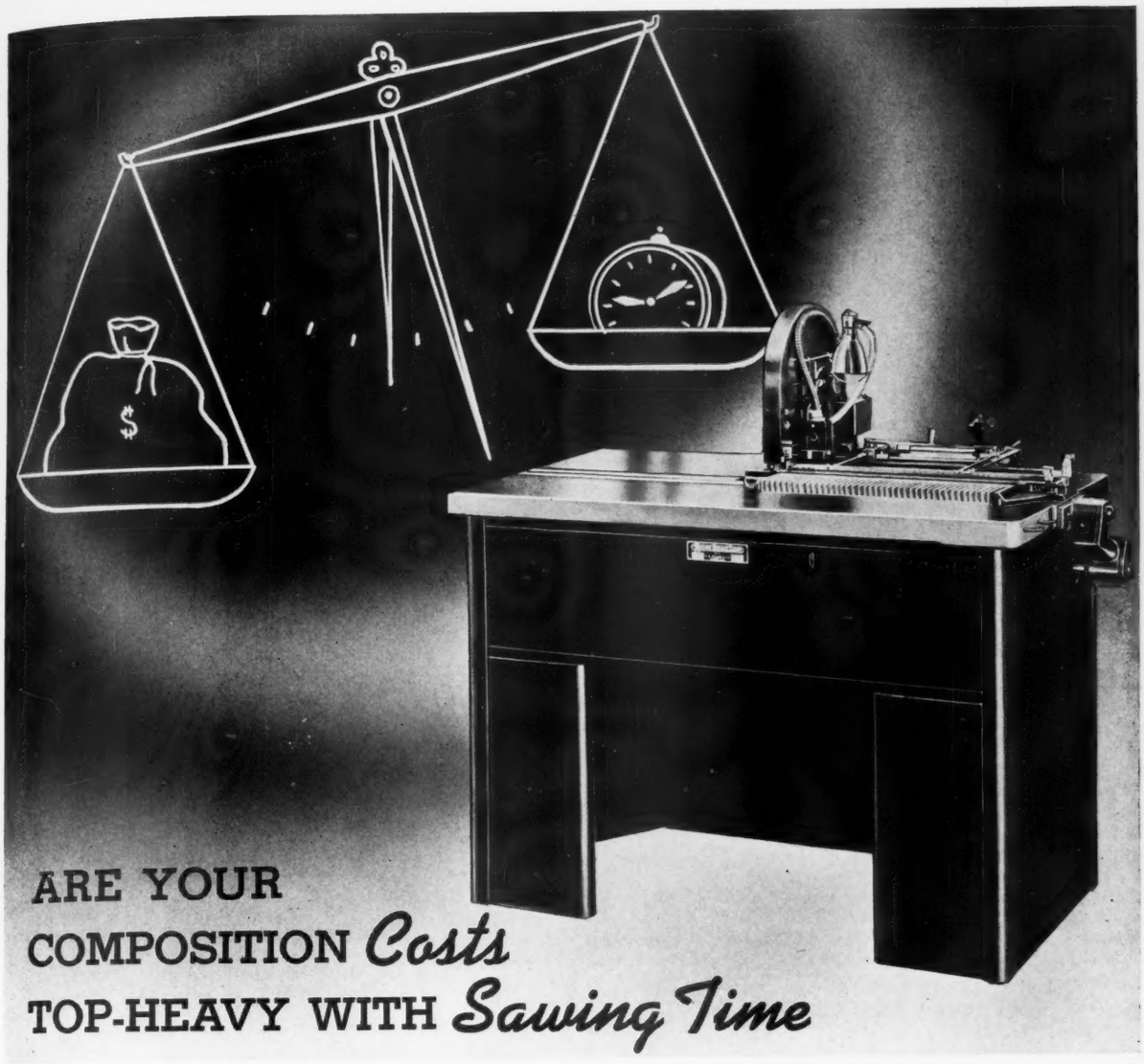
THIS PARAGRAPH is set in the eight point size of Intertype Rex duplexed with *Italic and* SMALL CAPS 1234 *1234*

8 Point Rex with Italic and Small Caps

Ed Horn, for many years chief machinist for the *Ohio State Journal*, Columbus, O., has retired from active work. At the present time his health is improving.

Now Champlain Corporation

It's now Champlain Corporation instead of Chambon Corporation, the corporation's address to remain the same as heretofore at Garfield, New Jersey. Announcement has been received stating that the change of name is effective from April 1. In the announcement it is stated that the new name is the result of a gradual change in the character of the corporation's printing presses and is represented in the new line of Champlain gravure presses. The trade name Champlain will apply to both letterpress and gravure presses.



ARE YOUR COMPOSITION *Costs* TOP-HEAVY WITH *Sawing Time*

Sawing slug lines to variable measures, by ordinary methods, is a time-consuming operation not apparent in the finished job or advertisement.

The Rouse BAND SAW reduces this time to a minimum, relieving compositors to the more productive operations of make-up time.

The Rouse BAND SAW will cut a full galley of slugs to variable measures for run-arounds or ad lines in 35 seconds. There is no setting of gauges or clamps. There is no delay at the typesetting machine. The speed of cut is constant, whether all slugs are the same length or many different measures.

Excessive sawing time is an unnecessary evil in the modern composing room. The Rouse BAND SAW does the work of hours in minutes. There are models for both large and small plants. Complete information will be sent upon request. Write now.

SEE THE ROUSE EXHIBIT AT THE A.N.P.A. MECHANICAL CONFERENCE IN CHICAGO

H. B. ROUSE & COMPANY

2216 NORTH WAYNE AVENUE, CHICAGO, ILLINOIS

Illustrated is miniature reproduction of specimen book published by Eagle Printing Ink Co. Div. of General Printing Ink Corporation showing company's most popular blacks correlated to most commonly used stocks. Book is available upon request.

EMPLOYMENT AND SERVICE

Employers, production and mechanical executives may insert notices in this department. Items may pertain to the following subjects: "Executive Wanted," "Association or Partnership Wanted," or "Position Wanted," readers referring to subjects of a personal nature such as obtaining information about addresses of executives, supplying copies of technical articles and magazines, patents for sale or requests for contacts for developing and/or financing of inventions.

Any reasonable request from an employer or mechanical executive for the printing of a notice upon a subject other than the ones listed above will be granted.

Notices may be printed under the following regulations: First insertion (maximum six lines) is free of charge. All subsequent insertions of the same item subject to a charge of 75c per line in advance.

Address all communications with box number to *Printing Equipment Engineer*, 1276 West Third St., Cleveland, O.

MECHANICAL SUPERINTENDENT OR PRODUCTION MANAGER — Young, practical, experienced, exceptional energy and ability, successful background of proven performance; will take full charge of plant. 100% results guaranteed. Can reorganize, install systems, improve quality, increase output, cut costs, coordinate departmental operations, solve personnel problems, eliminate labor friction. Prefer connection with publisher who wants plant converted into highly efficient profit-earning organization. Highest references. Will consider first-class proposition anywhere. Reply Box 91.

COMPOSING ROOM FOREMAN AND PRODUCTION MAN WANTED — In plant doing publication, high grade catalog and school annual work. Location Eastern Pennsylvania, 25 man plant, union. Reply Box 92.

MANUFACTURER WANTED — To build sheet-fed offset press invented by Designer Irving A. Hunting. Now in patent office. Has new running feed and trip allowing cylinders to print three-quarters of their circumference and use other quarter to trip blanket cylinder, first from plate cylinder, then from impression cylinder. As a unit-type multicolor, uses chain transfer with positive register. With 12 in. cylinders, can print 28 in. by 42 in. at 7200 sheets per hour. Less than 6 ft. high. Reply Box 90.

Patterns In the Snow — This 75-line screen zinc halftone was reproduced in the Wednesday, March 13 issue of the Milwaukee *Journal*. It is reproduced here as an example of a "happy" contrasting of tones particularly suitable for newspaper reproduction. The picture was taken by John M. Bruen, Duluth, Minn., with a Contax camera in a late winter afternoon. Mr. Bruen entered the picture in the "camera clickers' " series. *Journal* cameramen awarded it a prize for beauty and composition.

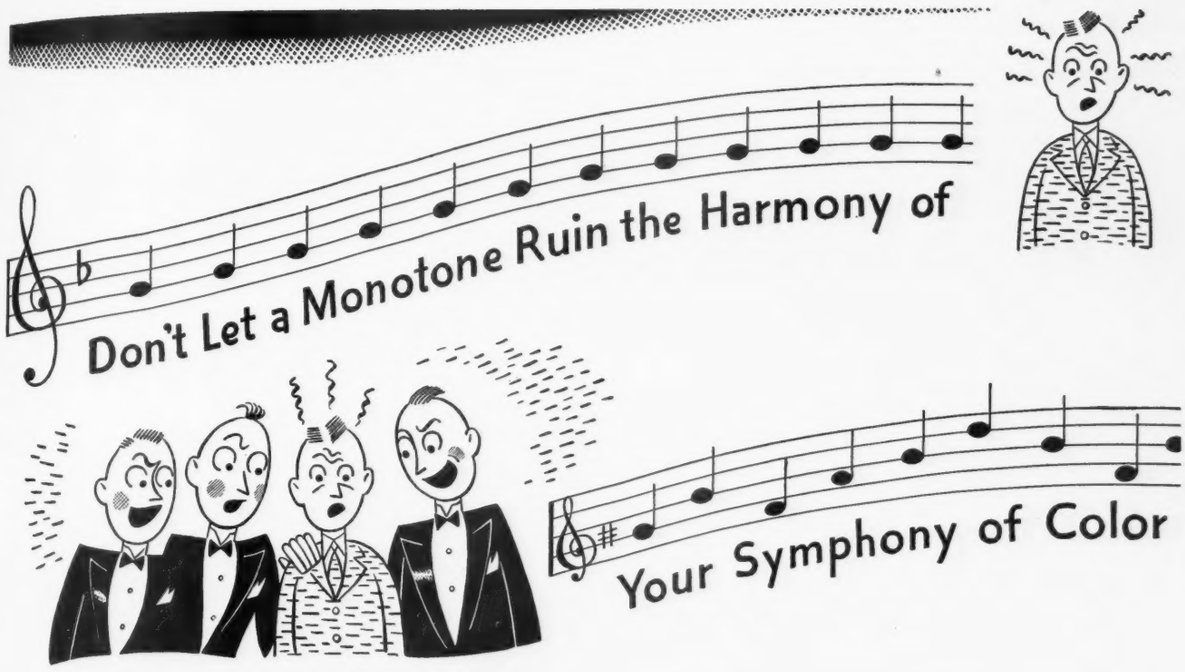
Elected President

George Warmbold of Sinclair & Valentine Company, was elected president recently of the Chicago Printing Ink Makers Association. A year of activity and progress is being looked for-

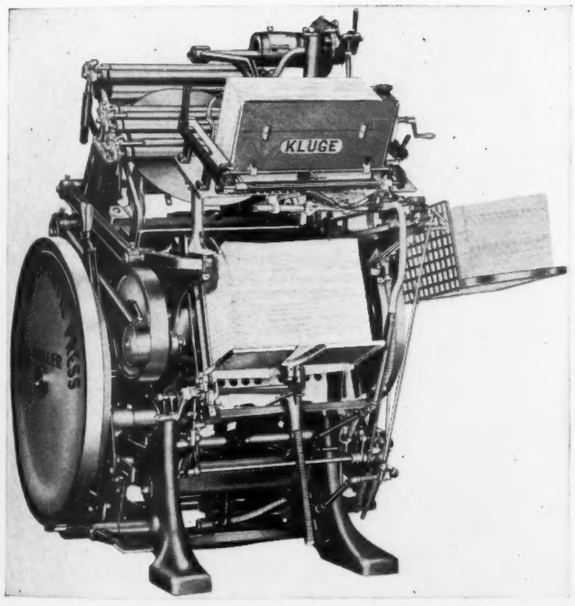
George Warmbold, President, Chicago Printing Ink Makers Association

ward to by the association's membership under the administration of Mr. Warmbold and his executive family.

Associated with Mr. Warmbold are the following officers: Vice President, E. C. Stone of the George Morrill Printing Ink Co.; Treasurer, H. A. Kernel of the American Printing Ink Co.; Secretary, James Kerwin, and Directors Paul R. Greenman, W. Gold, William Dyer, Sherman Ruxton, Louis Hraback, Martin Driscoll and Joseph Neary.



Kluge's "Selec-Tone" system will replace that "monotone" ink distribution that is spoiling the harmony of your printing



● No more flooding light portions of a form in order to cover solids — or greying solids to avoid filling up lighter parts of a form. Kluge's "Selec-Tone" distribution system puts just the right amount of ink exactly where you want it. Just set the Kluge fountain in any variation the form requires. You can be sure the ink will be carried by the distributor rollers across the ***controlled*** disc to the form rollers and onto the form properly and perfectly.

Find out how easy it is to get rid of that "monotone" ink distribution that is spoiling the harmony of your printing. Write today for the booklet describing Kluge's "Selec-Tone" distribution system in detail.

BRANDTJEN & KLUGE · INC.
MANUFACTURERS · SAINT PAUL, MINNESOTA

BRANCHES IN BOSTON · NEW YORK · PHILADELPHIA · CHICAGO · ATLANTA · DETROIT
ST. LOUIS · SAN FRANCISCO · DALLAS · LOS ANGELES · MINNEAPOLIS · CANADA: SEARS, LTD.

PERTINENT PAPER ¶s

Paper Research Expert Frank E. Wagner of the S. D. Warren Company addressed the Rochester Club of Printing House Craftsmen and students, Department of Publishing and Printing at the Rochester Athenaeum and Mechanics Institute recently.

The question and answer period brought out the following pertinent remarks from the speaker:

Pools of ink (causing offset) basically is a paper problem.

Rubber plates lay gold and silver inks better than a hard plate.

It is absolutely necessary to use sprays on gloss ink jobs.

Paper will not cure itself or change *when left in a pile* in the pressroom. This failure to cure is evidenced by wavy edges.

There is no perfect folding paper — under *all* conditions.

Paper's Advance

Mr. Wagner stated that paper has advanced far from 1930 standards. The manufacture has gone far on all fronts, making it much more serviceable than it was in 1930: (1) these ten years have seen solid pigments made finer and more flexible — reduced from 5 microns to one four-hundredth of a micron (a micron is one millionth of a meter, and a meter is about 40 in.); (2) Paper is much less resistant to printing ink; (3) Paper has now reached 85% of a pure white (100% is sunlight); (4) There is less experimenting with ink on a given job; (5) There is less pooling of ink and, therefore, a minimum of offset; (6) Paper is more uniform; (7) There is less cutting from three and four rolls at one time and more from one roll, which gives better uniformity in sheets; (8) New coating and loading materials need less calendering now, which makes for less burned sheets; (9) Bristle marks have been eliminated from coated papers, permitting halftones to print better; and (10) Dust on sheets which formerly filled up halftones has been practically eliminated.

Paper is Cheaper

Charts displayed by the speaker showed how the price of paper has decreased since 1929, in spite of the far better product. Example: No. 1 folding enamel was 16½c in 1929 — now it is 13c.

EXECUTIVE ¶s

Ellis Wright, head of the mechanical department of the Independence (Mo.) *Examiner* since 1898, passed away recently as the result of a stroke. He was 71 years old at the time of his death.

Stricken as he was returning from a motor trip to Florida, Elliott B. Wharton, Mechanical Department Superintendend of the Harrisburg (Pa.) *Patriot* and *Evening News*, died recently.

Charles L. Fowler, Mechanical Superintendent of the Shenandoah (Pa.) *Evening Herald* for more than 40 years, succumbed recently to a heart condition.

Alfred E. Rigby, Stereotype Foreman of the Jacksonville (Fla.) *Journal*, passed away recently as a result of a bullet wound accidentally inflicted as he was cleaning and oiling a .38 calibre pistol in his workshop at home.

Fred Connell, recently with the Atlanta *Journal*, is now Mechanical Superintendent of the Atlanta *Constitution*.

James P. Grant, recently with Mechanical Superintendent Cortland Strang of the New York *Times*, has been appointed Mechanical Superintendent of the Philadelphia *Bulletin*. He succeeds Frank Smith who died Feb. 28. Mr. Grant is 33 years of age and is a graduate of the University of Toronto.

William C. Herrick of the Herrick Ink Company, passed away in New York on Thursday, April 5 after a several week illness. Immediate cause of death was a heart attack. J. J. Field, 3rd, president, will continue management of the company with the same personnel and without interruption.

Leven T. Deputy, in February, was made a director of the company publishing the Dallas *Morning News*. Mr. Deputy's friends about the country will be pleased to know about his preferment.

A.N.P.A. Mechanical Conference Exhibits

At the 1940 A.N.P.A. Mechanical Conference to be held at the Drake and Knickerbocker Hotels on June 10, 11 and 12, the equipment and supplies exhibits will be located on the main floor of the Drake Hotel adjacent to the ballroom. The hotel management has supplied a larger space for this purpose than when the conference was held there in 1937. The exhibit hall has been laid out for 71 booths and there is a room adjoining in which 25 more exhibits can be accommodated.

The Mechanical Department's newspaper exhibit will be located on the mezzanine floor adjacent to the ballroom balcony.

Westlin Promoted

James A. Westlin, assistant manager of the Maqua Company, printing and engraving concern affiliated with General Electric, since May, 1930, has been named general manager, succeeding Robert S. Peare who last week was named manager of the publicity department of the General Electric Company. Donald A. Wood, who served eight years as Maqua's representative at the Bridgeport, Conn., works of General Electric, has been named assistant manager, filling the post left vacant by the promotion of Mr. Westlin.

Herbert H. McNamara, 65, manager of Sam'l Bingham's Son Mfg. Co. of Minnesota since 1909, passed away in Minneapolis on April 11. Mr. McNamara had spent his entire life in the Graphic Arts Industries. He had been continuously in the employ of Sam'l Bingham's Son Mfg. Co. for 35 years. He is survived by his wife and one brother. Funeral services in Robbinsdale, Minn., and interment in Valhalla Cemetery, Milwaukee.

Hess Appointed Art Director

The Lanston Monotype Machine Company announced that commencing April 1, Sol Hess is Monotype Art Director. Frederic W. Goudy, the eminent designer, will retain his connection with the company as Monotype Art Advisor. In view of Mr. Hess's preferment, the following outline of his career will be of interest.

Sol Hess is now Art Director for Lanston Monotype Machine Company

At the age of 5 years Sol Hess first indicated his desire to draw. At 12 he was awarded a scholarship to study art and design at the Pennsylvania Museum and School of Industrial Art in Philadelphia, from which institution he was graduated in 1901 with high honors, having won another scholarship and several prizes for original design.

His first position was as a designer of

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jacquard fabrics in a Philadelphia textile mill which specialized in the production of tapestry materials of various kinds. He went to work in the drawing room of the Typographic Department at the Monotype factory in 1902, his first work being the adaptation of Bruce Old Style for composition on the Monotype. It was during his employment in the drawing room that the Monotype matrix was changed from the old side-hole form to the present cellular form, necessitating the redrawing of all sizes of all faces previously made. His first original type face was made in 1910 for use by Gimbel Brothers' New York store, which was called Hess Title, Series No. 161.

In 1922, Mr. Hess was appointed Typographic Manager; he was afterwards made Assistant Art Director and then Associate Art Director of the Monotype Company.

He is gifted as a designer of original faces as well as an adaptor of types for Monotype use, and in fitting letters for use in machine and hand composition. In the exercise of this rare combination of creative talent and mechanical sense, Mr. Hess has produced more than forty type faces for casting on Monotype machines. Among these are many original faces which have attained wide use by printers, typographers and book designers, etc., including, among others, the following types: Hess Title, Cochin Bold, Hess Old Style, New Bookman, Sans Serif Extrabold, Sans Serif Light Condensed, Sans Serif Medium Condensed, Sans Serif Extrabold Condensed, Stymie Extrabold, Stymie Extrabold Condensed, Bodoni Bold Condensed, Goudy Heavy Condensed, Hess Bold, Baskerville Bold, Artscript, Flash, Onyx Italic, Spire, 20th Century Extrabold Italic, 20th Century Bold Italic, Stylescript, etc. He has adapted many existing types to Monotype use and has designed a number of private faces.

In his new position, it is stated, Mr. Hess will remain in charge of the design and drawing for production of all type faces, ornaments, borders, etc., intended for casting on Monotype machines; he will exercise supervisory control over final results of Monotype matrix making activities, and will assist the Company in the selection of new types to be made available for Monotype users — as well as continue his work as an active designer of new types.

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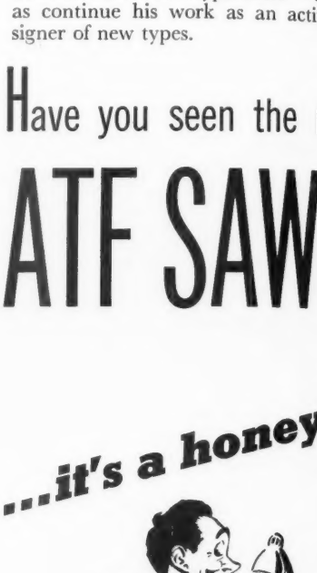

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PRINTING PATENTS REPORT

(Covering Patents issued from March 26th through April 23rd)

This patent data is compiled exclusively for *Printing Equipment Engineer* by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading continuous from the last published issue of this magazine.

For copies of patents listed here, specify the patent numbers and send 10c each (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Bookbinding:

2,196,386. LOOSE LEAF BOOKBINDING employing a wire loop member for securing the leaves, the binding being so constructed as to leave the "backbone" clear to carry printed advertising matter. Invented by Alfred D. Douglas, Detroit, Mich. Assigned to Michigan Book Binding Co., Detroit, Mich. Application March 27, 1939. 1 claim.

2,194,985. IMPROVED MEANS AND METHOD FOR REBINDING BOOKS the bindings of which have become detached. The device employs a novel backing sheet and leaf engaging tapes. Invented by William David Price, Los Angeles, Calif. Unassigned. Application March 31, 1939. 1 claim.

Composing Machines:

2,194,812. TYPE FORM CLAMP for holding together assembled type or type bars, particularly for assembled type for printing a full page of a book. Invention is for use in transferring assembled type to a chase, and remains applied to the type during printing. Invented by Clarence L. Self, Minneapolis, Minn. Assigned to V. B. McGuire Mfg. Co., Northfield, Minn. Application October 3, 1938. 3 claims.

2,195,138. TYPOGRAPHIC SLUG CASTING MACHINE wherein the matrix lines, from which the slugs are cast, are justified by expansion of spacebands comprising pendant wedge-shaped members adapted to be forced upwardly through the line. Invented by Frank C. Van Schaick, San Francisco, Calif. Assigned to Mergenthaler Linotype Co., 29 Ryerson St., Brooklyn, N. Y. Application March 30, 1939. 8 claims.

2,195,140. SLUG CASTING MACHINE having means for automatically stopping the machine in event the advance of the metal pot is arrested before the mouthpiece reaches pouring position against the face of the mold. Invented by Artemas B. Watson, Columbia, S. C. Assigned to Mergenthaler Linotype Co., 29 Ryerson St., Brooklyn, New York. Application July 30, 1938. 12 claims.

2,195,143. SLUG CASTING MACHINE wherein the required adjustment in width of the ejector blade is effected during the mold changing operation. Invented by Harold A. Burt, St. Albans, N. Y. Assigned to Mergenthaler Linotype Co., 29 Ryerson St., Brooklyn, N. Y. Application March 2, 1939. 20 claims.

2,195,146. TYPOGRAPHICAL COMPOSING MACHINE having two non-pivoted assembler entrance sections, each in register with the outlet of one magazine, associated and running together to a single series of conduits, in register with the assembler chutes, which are thus common to the matrices for both magazines. Invented by Eric Gayter, Timperley, and Arthur Staniland Hayward, Altrincham, England. Assigned to Linotype and Machinery Ltd., London, England. Application December 6, 1938. 17 claims.

2,195,153. TYPOGRAPHICAL COMPOSING AND DISTRIBUTING MACHINE of the type wherein typographical elements stored in a magazine are released in order of composition, assembled in line, and subsequently passed through a distributing mechanism for return to respective channels of the magazine. The invention is particularly concerned with a novel pi chute. Invented by Richard Henry Scott, Enfield, England. Assigned to Linotype and Machinery Ltd., London, England. Application March 23, 1939. 6 claims.

2,195,467. METHOD FOR COMPOSING, CASTING AND MAKING up line slugs for multiple column printing whereby paper is conserved, yet wide spaces are maintained between columns. According to the invention, slugs are provided wherein the matrices for each line are condensed an imperceptible degree and the ends of the lines are indented from the ends of the slugs without substantial reduction of the number of matrices per line. Invented by Leo E. Ownes, St. Paul, Minn. Unassigned. Application February 15, 1939. 2 claims.

2,196,061. MOUTHPIECE WIPER FOR TYPE CASTING MACHINES comprising a wiping element which is moved backward and forward across the mouthpiece as the delivery slide operates. Invented by David Diamond, Brooklyn, N. Y. Unassigned. Application February 1, 1939. 10 claims.

2,196,987. TYPEWRITING, TYPESETTING, OR LIKE MACHINE providing for key selecting and key setting with two similar, separate and independently operated key boards. The invention is said to make possible the actuation of groups of two, three or four letters at one stroke or motion of one hand. Invented by Ernest Gaston, New Haven, Conn. Unassigned. Application January 14, 1935. 4 claims.

2,197,061. TYPESETTING MACHINE for composing and distributing type of varying thickness to a standard multigraph. Invented by Clark S. Stevens, St. Paul, Minn. Unassigned. Application March 10, 1939. 6 claims.

2,197,576. DEVICE FOR ASSORTING LETTERPRESS TYPE FACES, rules, borders, leads, etc., of varying sizes after use in a printing job. The invention consists of a panel, on which the type is placed after being used, and a sliding clamp arrangement that enables the operator to pick all of one size of type at a time. Invented by King Solomon Bobian, Montrose, Pa. Unassigned. Application February 25, 1939. 3 claims.

2,198,044. SPACEBAND TRANSFER MECHANISM for typographical machines with means for releasably latching the transfer pawl in an elevated position. Purpose is to clear the lugs of spacebands during the forward stroke thus avoiding damaging or dislodging them. Invented by Arthur G. Sperry, Hollis, New York. Assigned to Intertype Corp., 360 Furman St., Brooklyn, New York. Application November 7, 1939. 5 claims.

2,198,370. EJECTOR FOR SLUG CASTING MACHINES utilizing a novel ejector blade having an integral, laterally projecting rib to engage one of the widened supporting ribs on the slug. Invented by Arthur G. Sperry, Hollis, N. Y. Assigned to Intertype Corp., 360 Furman St., Brooklyn, N. Y. Application November 22, 1939. 9 claims.

Feeding, Folding, Delivery:

2,194,802. TABLE AND SEAT for use in manually gathering copies of printed matter. Invented by John M. Low, Evanston, Ill. Unassigned. Application September 6 1938. 4 claims.

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2,195,141. STAND FOR SUPPORTING WEB ROLLS used in newspaper printing. The device has a single motor for adjusting the spiders or web supports and means at a single control station for controlling the connection of the spiders to the motor, whereby the spiders may be adjusted unison or independently. Invented by Henry A. Wise Wood, New York, N. Y., Paul L. Tollison, North Plainfield, and Charles L. Ricards, South Plainfield, N. J. Assigned to The Wood Newspaper Machinery Corp., Plainfield, N. J. Application December 7, 1936. 15 claims.

2,195,459. APPARATUS FOR FEEDING SHEETS IN LAPPED RELATION to a printing press or the like, having novel means for advancing, retarding and positioning the sheets relative to the registering devices on the press. Retarding, advancing and delivery of the sheets is carried out by alternately operated suction devices. Invented by Edward R. Kast, Pearl River, N. Y. Assigned to Dexter Folder Co., New York, N. Y. Application August 24, 1937. 17 claims.

2,195,533. MECHANISM FOR DELIVERING AND PILING SHEETS discharged from a press employed to cut and crease the sheets. The invention is arranged to deliver sheets in a pile to any selected one of several pile supports, so that the press may be run continuously, without stopping for removal of the pile. Invented by Samuel A. Huffman, Joseph Sinkovitz and August A. Saul, Pittsburgh, Pa. Unassigned. Application May 13, 1938. 12 claims.

2,195,822. FOLDING APPARATUS for use with printing presses producing bleed page combinations and different size signatures. Invented by Joseph E. Meyer, Westerly, R. I. Assigned to C. B. Cottrell & Sons Co., Westerly, R. I. Application January 4, 1939. 10 claims.

2,195,823. METHOD OF PRODUCING FOLDED PRODUCTS with bleed color pages facing each other. Invented by Joseph E. Meyer, Westerly, R. I. Assigned to C. B. Cottrell & Sons Co., Westerly, R. I. Application January 4, 1939. 10 claims.

2,196,612. MECHANISM AND CONTROL SYSTEM for substituting an active web roll with a replenishing roll without affecting high speed operation and with no shock to the webs. Invented by Walter C. Scott, Plainfield, N. J. Unassigned. Application June 11, 1936. 4 claims.

2,196,633. WEB CONTROL MECHANISM designed to effect more accurate side register than has been possible on high speed machines. Invented by Robert McC. Johnstone, Short Hills, N. J. Assigned to Cameron Machine Co., 59 Poplar St., Brooklyn, N. Y. Application March 23, 1939. 2 claims.

2,197,260. DEVICE FOR SUPPORTING AND GUIDING the end of a paper web being fed to a cutting machine. The invention prevents the paper from curling downward when passing from the front to the rear blades, and disengages from the paper immediately before the actual cutting operation in order to allow the paper to fall away naturally. Invention by Frank M. Pickett, Darien, Conn. Assigned to Remington Rand, Inc., 1939 Ensinger St., Buffalo, N. Y. Application September 1, 1939. 6 claims.

2,197,573. MECHANISM FOR CONVEYING NEWSPAPERS FROM A PRESS TO A ROOM, such as a mailing room wherein means is provided for conveying the papers in straight lines and around corners at a speed in direct proportion to the speed of the printing press. The mechanism is driven by motors spaced along the conveyor and operated by individual dynamos rotated by the press, so that the speed of the conveyor and the speed of the press are properly synchronized. Invented by Paul L. Tollison, North Plainfield, N. J. Assigned to Wood Newspaper Machinery Corp., 688 S. 2nd St., Plainfield, N. J. Application December 4, 1937. 6 claims.

2,198,067. SHEET FEEDER FOR PRINTING PRESSES, ETC., whereby there is provided a hopper to hold the sheets, a means of feeding the sheets from the top of the stack, a retard device to limit passage to one sheet at a time, and a treadle that lifts the hopper allowing the operator to add additional planks at the bottom of the pile. Invented by Edwin G. Staude, Minneapolis, Minn. Unassigned. Application July 24, 1939. 27 claims.

2,198,385. SHEET CONVEYOR for printing presses, designed particularly to overcome the effects of centrifugal force and vibration. Invented by Charles W. Harrold, University Heights, Ohio. Assigned to Harris-Seybold-Potter Co., 4510 E. 71st St., Cleveland, Ohio. Application June 7, 1938. 9 claims.

2,198,460. PAPER FOLDING APPARATUS wherein a straight line of liquid is applied to the paper at the line of the fold just before the paper passes into the folding unit. Invented by Fay E. Rickard, Chicago, Ill. Unassigned. Application November 29, 1938. 7 claims.

Miscellaneous:

2,194,911. METHOD OF NEWSPRINTING in which printing ink applied rapidly to a porous paper is set or dried by controlled penetration. According to the invention, the viscosity of the ink is varied to cause a rapid initial penetration followed by arrested penetration. This object is attained by including a thermoplastic binder in the ink, and subjecting the print to heat, so decreasing the viscosity, and then cooling the print to raise the viscosity of the ink and arrest penetration. Invented by Philip K. Porter, Jackson Heights, N. Y. Assigned to Interchemical Corp., New York, N. Y. Application January 15, 1938. 6 claims.

2,195,006. ELECTRICAL CONTROL SYSTEM FOR PROPERLY REGISTERING the work with machine elements in paper cutting, winding and printing, particularly in the manufacture of bags. The device specifically proposes to control the relative speed of the cutter and feeder mechanisms of such machines by photoelectric means. Invented by Finn H. Gulliksen, Wilkinsburg, Pa. Assigned to Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa. Application April 14, 1938. 16 claims.

2,195,753. SURFACE TREATING APPARATUS, using fluid under pressure of compressed air, for preventing offset on printed surfaces, the device being particularly designed for immediate response to control and synchronization with the press. Invented by Jens A. Paasche, Wilmette, Ill. Unassigned. Application July 28, 1937. 10 claims.

2,196,611. AIR CONDITIONED DRYER for drying ink on embossed or printed stationery, at the same time retaining the moisture normally present in the paper. Invented by John Schneider, Alhambra, Calif. Unassigned. Application July 1, 1938. 4 claims.

2,197,084. METHOD OF APPLYING TYPE FORMS, such as rubber printing plates, to a rotary press cylinder by first permanently securing the form to a curved flexible support which bends the form opposite from its normal plane, and then clamping the support to the printing cylinder so that the form is reshaped in conformity with the cylinder and with its outer surface in a state of compression. Invented by Henry Arnold Skov, Copenhagen, Denmark. Unassigned. Application January 31, 1939. 10 claims.

2,197,145. METHOD AND APPARATUS FOR DRYING PRINTS from inks containing solvents ordinarily difficult to volatize by passing the prints through a bath of molten metal at about 180-300° C., depending upon the paper, removing any metal remaining on the unprinted side of the web with a doctor blade; and removing metal clinging to the printed surface by centrifugal force as the web passes over a series of rollers. Invented by Loy S. Engle, Harrington Park, N. J. Assigned to Interchemical Corp., 75 Varick St., New York, N. Y. Application September 11, 1937. 4 claims.

2,197,458. PROCESS FOR PRODUCING METAL PHTHALOCYANINE COLORING MATERIALS by heating a phthalic anhydride with urea and a copper-yielding substance. Invented by Max Wyler, Blackley, Manchester, England. Assigned to Imperial Chemical Industries, Limited, Millbank, London, S. W. 1, England. Application July 10, 1936. 11 claims.

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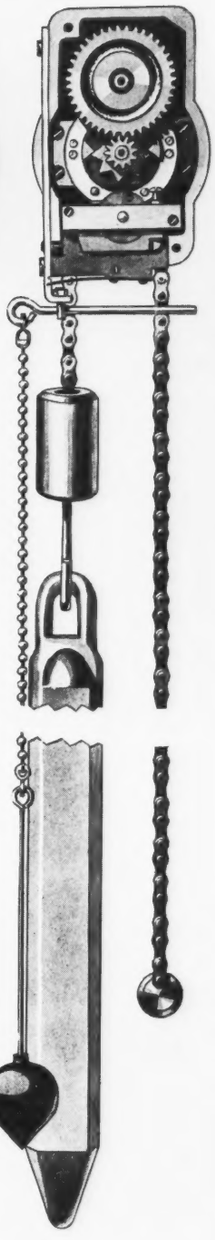

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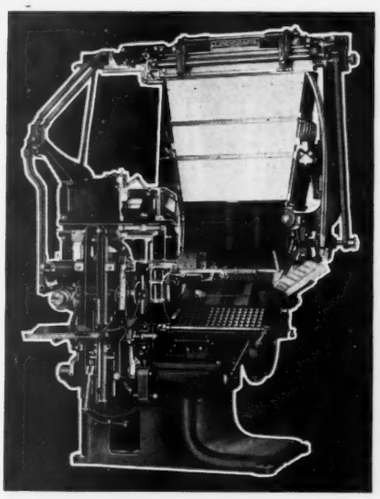

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2,197,459. PROCESS FOR PRODUCING METAL PHTHALOCYANINE COLORING MATERIALS by heating a phthalic anhydride with urea and a copper-yielding substance. Invented by Max Wyler, Blackley, Manchester, England. Assigned to Imperial Chemical Industries Limited, Millbank, London, S. W. 1, England. Application December 6, 1937. 6 claims.

Plate Making:

2,195,556. DIRECT METHOD OF MAKING NEGATIVES FROM A STENCIL, the negatives being for use in preparing printing plates. The invention is restricted to the preparation of the negative alone, and comprises scribing the image upon a coated sheet or stencil, dyeing the sheet to form a background for the scribed lines, and finally drying the sheet to form a non-shrinkable direct negative. Invented by Caldwell A. Beattie, Gordon L. Glassford, and William F. Dick, Pontiac, Michigan. Assigned to A. B. Dick Co., 720 W. Jackson Blvd., Chicago, Ill. Application September 14, 1937. 11 claims.

2,195,566. ZINC BASE ALLOYS adapted to be formed by rolling into improved engravers' plates. Plates formed of the new alloys have a predetermined hardness and do not so often excessively. Broad compositions according to the invention include 0.05—0.4% aluminum; 0.0004—0.009% magnesium, the remainder being substantially pure zinc. Invented by Lincoln S. Gifford, Greencastle, Ind., and Harold L. Maxwell, Wilmington, Del. Assigned to The American Zinc Products Co., Grogan Road, Greencastle, Ind. Application April 23, 1938. 6 claims.

2,196,133. PROCESS FOR ISOLATING SUPERIMPOSED SILVER IMAGES in multi-layer photographic material (film or plate) so that they can be employed as separation negatives. The invention makes possible the production of colored prints on paper from a multi-layer film exposed, with a single exposure, in an ordinary camera. Invented by Kevin William Caton Webb, London, England. One-half interest assigned to Robert Laing Bruce Gall, Westlake, Ootacamund, Nilgiris, South India.

2,197,015. NOVEL SHEET FOR USE IN PRODUCING SHADE EFFECTS SIMILAR TO BEN DAY in photographic reproduction, characterized by the presence of stippling, shading, and like effects over discontinuous areas, together with a suitable developer for changing the photographic visibility of the design. For instance, one discontinuance area of the sheet may be covered with mercurous chloride and another with zinc sulphide. Invented by William Swaysland, Cleveland, Ohio.

2,197,456. PRODUCTION OF NEGATIVE COPIES by use of light sensitive layers containing diazo sulphonates which contain in the nucleus carrying the diazo sulphonate group two etherified oxy groups but no amino groups. Invented by Gottlieb von Poser, Maximilian Paul Schmidt, and Georg Werner, Wiesbaden-Biebrich, Germany. Assigned to Kalle & Co., Aktiengesellschaft, Wiesbaden-Biebrich, Germany. Application August 13, 1938. 16 claims.

2,198,017. PREPARATION OF LITHOGRAPHIC PRINTING PLATES, including the novel step of treating the varnish coat with a solution of a carrier inert to the varnish and containing a small portion of a solvent for the varnish. Example: a small quantity of alcohol dissolved in castor oil. Coating of the varnish on the parts from which it is to be removed is thereby thinned so that it can be penetrated by water. Invented by Alfred Schlesinger, Hampstead, London, England. Unassigned. Application April 13, 1938. 6 claims.

Printing Presses:

2,194,467. ROTARY WEB PRINTING MACHINE and registering, cutting, delivering and assembling units designed to cooperate in performing operations such as printing one or both sides of a web and thereafter dividing the web into sheets. The invention is mainly concerned with the feeding arrangement for such systems. Invented by David Corbin, Chicago, Ill. Assigned to Gerald Gidwitz, Chicago, Ill. Application April 6, 1937. 11 claims.

2,195,149. INTAGLIO PRESS of the type adjustable for printing from cylinders of different diameters. Invention maintains the printing point constant, adjusting cylinder bearings and the fountain bowl, which are provided with novel housing. Invented by Hans C. Jordboy, North Plainfield, N. J. Assigned to Wood Newspaper Machinery Corp., Plainfield N. J. Application April 24, 1937. 13 claims.

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Will you try them . . . free of charge? Samples will be sent to you, without obligation of any kind, on request. Please specify gauge, shrink, and type of casting equipment used.

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DRY MAT
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21 West St., New York

FLEX
All-American
DRY MATS

ALL THE SPEED YOU NEED!

SAFETY PLUS!

DIAMOND

POWER PAPER CUTTER

● If your production requirements are within the capacity of a Diamond Power Paper Cutter, you'll find that it will give you **all the speed you need.** It will keep pace with the most efficient operator. Its action is fast and reliable—timed to the proper handling of stock. Accuracy is definitely assured!

The operator can always work at top speed—keep production in high with perfect safety. Mechanically, this rugged cutter provides a safeguard against every conceivable accident or error—fully protects the operator and stock. A double motion starting lever prevents accidental operation of the knife. The operator is master of the machine at all times and can stop the knife **anywhere.** Additional safety devices, designed to comply with state safety laws, are available as optional equipment.

Diamond Power Paper Cutters are made in three sizes: 30½, 34½ and 36½-inch. They are equipped with a wealth of time-saving devices and **built to endure.** All these features are described and illustrated in a timely 8-page brochure, entitled "Appraising the DIAMOND POWER PAPER CUTTER." It's **free.** Write!

The CHALLENGE MACHINERY CO.

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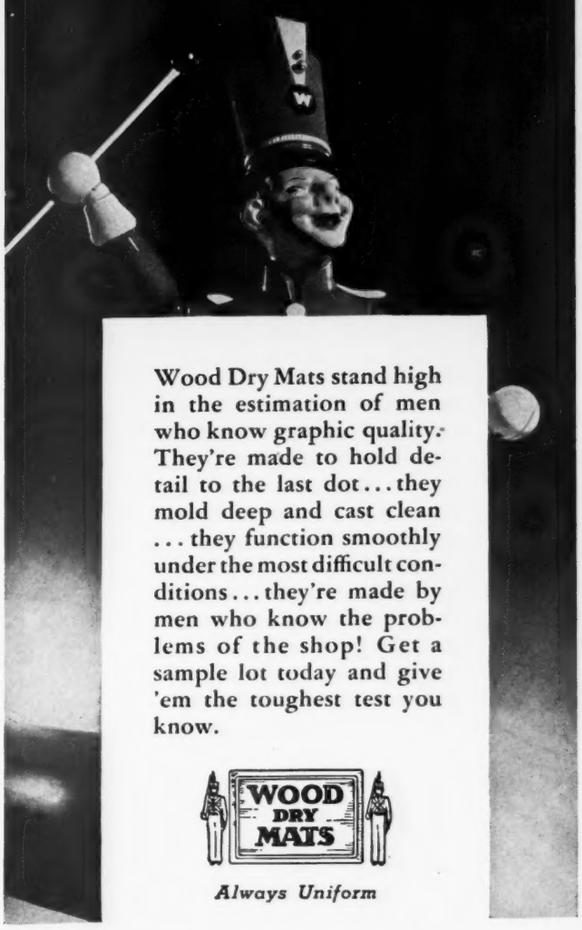

Wood Dry Mats stand high in the estimation of men who know graphic quality. They're made to hold detail to the last dot... they mold deep and cast clean ... they function smoothly under the most difficult conditions... they're made by men who know the problems of the shop! Get a sample lot today and give 'em the toughest test you know.

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Always Uniform

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The paper looks much better when plates are cast from Burgess Chrome Mats. The results reflect credit on the mechanical departments—and on their good judgment.
213
A Laboratory Product
BURGESS
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MATS
BURGESS CELLULOSE COMPANY
Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats
FREEPORT
ILLINOIS
Pacific Coast Representative
RALPH LEBER CO.,
426 Polson Bldg.,
SEATTLE, WASH.

2,195,243. IMPROVED DRIVE for presses of the power plate type printing from engraved plates. Invented by Edward F. Dudley, Oak Park, Ill. Assigned to Miehle Printing Press & Manufacturing Co., 14th St., & South Damen Ave., Chicago, Ill. Application November 17, 1938. 9 claims.

2,195,319. WEB-TURNER BAR FOR PRINTING MACHINES comprising a circumferential series of automatically operated longitudinal bars radially immovable relative to a central spindle carrying them, but movable axially relative to the spindle under influence of the web, thus avoiding friction in the passage of the webs and preventing smearing of the imprint. Invented by Edgar Rouse Suteliffe, Lowton, Newton-le-Willows, England. Application July 16, 1938. 7 claims.

2,195,829. DEVICE FOR CONTROLLING ROTATION OF A DUCTOR ROLLER, permitting free spinning while the roller contacts the plate or fountain roller, but braking it at all other times. Invented by Clarence E. Shreffler, Beloit, Wis. Unassigned. Application September 23, 1938. 2 claims.

2,196,412. DAMPENING MECHANISM FOR LITHOGRAPHIC PRESSES wherein uniform air pressure is maintained for atomizing the water and improved guards are provided for the atomizer. Invented by Elmer C. Grembecki, Chicago, Ill. Assigned to Roberts & Porter, Inc., Chicago, Ill. Application July 25, 1938. 20 claims.

2,196,489. PAPER ROLL CHUCK for clamping rolls of paper to shafts in printing presses, etc., the chuck being characterized by ready clamping and centering and easy manipulation. Invented by Franklin Pierce Bennett, Seattle, Wash. Unassigned. Application June 5, 1937. 1 claim.

2,198,581. WEB PRINTING MACHINE supporting the freshly printed paper with rollers having surfaces consisting of radially spaced teeth, thereby eliminating smudging or smearing. Invented by Clayton E. Wyrick, Wyandotte, Mich. Original application August 29, 1936. Divided and this application January 3, 1938. 11 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Barrister Bldg., Washington, D.C

METALLIC INKS

(*Continued from Page 10*)

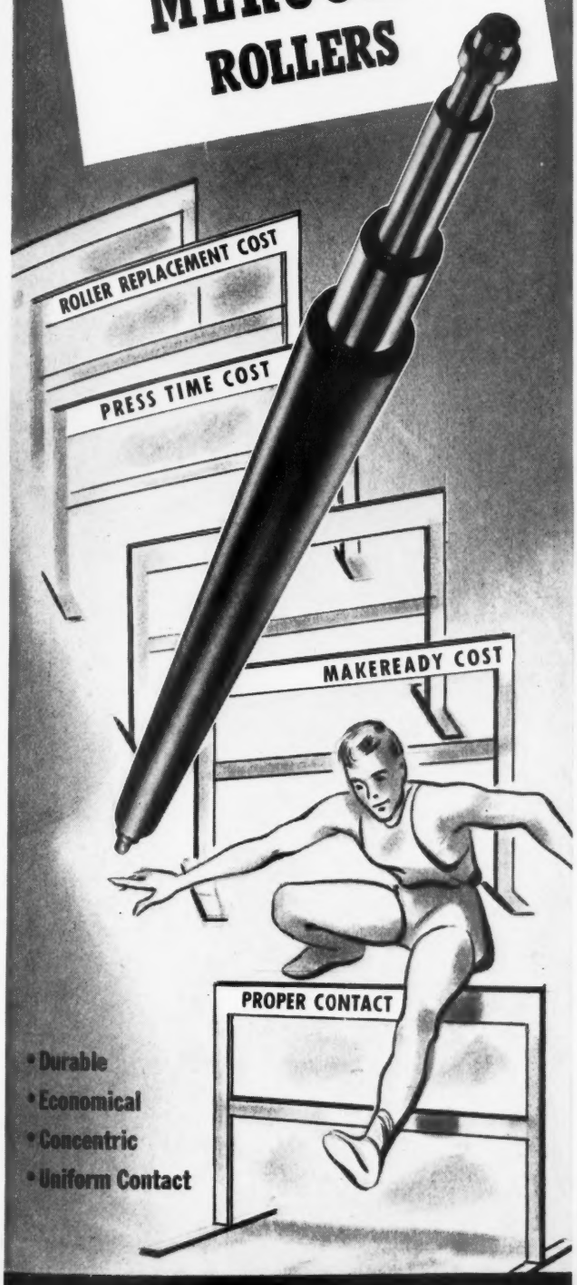
had already been conducted and recorded on the subject, past performances indicated that certain very definite and rigid paths must be followed in the successful development of vehicles for metallic inks. For example, the physical characteristics of all the paper stocks available on which these inks could be applied, and all of the bronze and aluminum powders available, had to be carefully related. It was necessary to draw a fine and sensitive balance between brilliancy and flaking, penetration and so-called non-drying, in the formulations of the right vehicle. Further, a close relationship between resin content, oils and solvents had to be established in order to allow for the greatest leafing of the metallic powders, and at the same time to provide good holding and adhesion for the stock being used.

It might be well to remind lithographers and printers at this point that they quite often lose sight of the importance of the vehicular property of metallic inks. Two very important properties which must be incorporated into these inks are drying and body. Both are most essential for the successful production of metallic prints. The rate of drying must be definitely set to halt penetration after leafing has taken place. On the other hand, metallic ink consistency must not be disturbed, as it controls both the working of the ink itself as well as its binding properties.

Colored Metallic Inks

The re-introduction of colored metallic inks as practical working media once more gives the

Hurdle those Press Problems
WITH
MERCURY ROLLERS

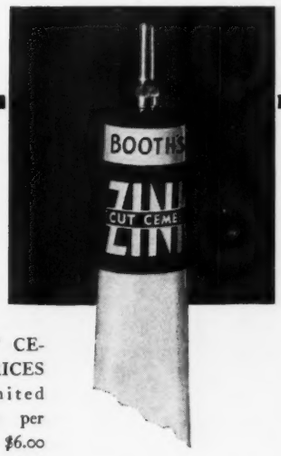


- Durable
- Economical
- Concentric
- Uniform Contact

RAPID ROLLER CO.

D. M. Rapport
President

26th at Federal St.
Chicago, Illinois



ZINK CUT CEMENT PRICES in the United States: 75c per large tube; $6.00 per dozen tubes; $5.00 per dozen tubes in gross lots.

TIME-CONSUMING complications do not occur as the result of using Booth's Zink Cut Cement for mounting cuts. Fastening cuts to bases with this cement is an exceedingly simple operation.

From a production standpoint, mechanical executives may be assured their troubles with lost or out-of-position cuts are over as soon as the use of this highly specialized cement is inaugurated.

You see, it's made for one purpose only — and how it does hold all kinds of cuts to bases when applied as directed!

Send for a trial tube at 75c

Foreign Distributors
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JUNGER & JUNGER
Goteborg, Sweden

E. A. BOOTH
RUBBER COMPANY
364 ROCKEFELLER BUILDING · CLEVELAND, OHIO

graphic arts a tool by which the eye can be attracted with striking effect, yet no one, possibly not even the industry itself, will realize what efforts the ink maker had to expend to make them possible.

Precautions For Pressroom

Metallic inks require special handling during press operation. In the interests of successful operation, therefore, here are a few general precautions and rules which should be observed in the pressroom:

(1) It is essential before proceeding with the run to produce a few test sheets to be sure that the paper and ink are suited to each other.

(2) Even though sample sheets have been submitted to the ink maker, it is still necessary to check the quantity shipment.

(3) It is imperative that the pressman does not make any additions to the ink. The ink maker has formulated the specific ink to be used on the job. If there are any questions, ask him.

(4) Don't fuss with the ink. If the pressroom conditions are such that the ink appears heavy and likely to pick the stock, adjust the pressroom temperature, etc., but don't fuss with the ink.

(5) Distributing and form rollers should be new and have a good tack for best results.

(6) Set your rollers with the greatest care.

(7) Use sprays if possible.

(8) See that not too many sheets are allowed per lift.

(9) Careful inspection and winding at regular intervals to avoid offsetting and sticking should be maintained. Metallic inks dry much faster than pigmented inks, hence this precaution.

The best results in metallic ink printing by either lithography or letterpress are obtained with aluminum inks. While gold bronze inks work successfully by letterpress, the same cannot be said for lithography. This is a problem which the ink maker and the powder bronze manufacturer have not yet solved with complete satisfaction.

Compact Price List

Designed to be of practical assistance to sales representatives, Vandercook & Sons have published an Illustrated Price List of the company's complete line of proof presses and accessories for taking proofs as well as products pertinent to precision preparation of printing elements manufactured by others. The catalog consists of 20 pages, 8½ in. by 11 in. size. Each item is illustrated. The catalog is punched for insertion in a binder.

In the subject matter for each item, the following information is given: The type of work for which the item is best suited; inclusive prices; complete specifications of standard and optional equipment; brief descriptions.

In commenting upon the catalog, General Manager E. O. Vandercook stated: "Our products are sold by salesmen who sell, in addition to our equipment, a great many items of other manufacture. It is impossible for these men to carry circulars on all of the equipment they are supposed to sell. We believe they will carry our Illustrated Price List which answers most of the questions that come up with reference to our line."

HAVE YOU CHECKED YOUR METAL LATELY?

If you haven't checked the condition of your metal supply recently, send a sample to Imperial today for your free analysis. In all probability it is in good shape, but if not, trouble may be on the way. To play safe and be sure your metal supply is in tip-top shape, take advantage of Imperial's Plus Plan and regular metal analysis.

Imperial's Plus Plan control replaces the vital elements skimmed off with the dross and prevents trouble before it happens. That's why Imperial is a favorite with commercial, private and newspaper printing plants all over the country. Plus Plan is automatic, constantly on guard —taking the place of irregular expensive toning.

Decide now to minimize production losses—join the thousands of Imperial users—send your metal sample today, to

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IMPERIAL TYPE METAL CO. • Philadelphia • New York • Los Angeles • Chicago

B

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The printers delight
When KIMBLES protect it
On runs day or night.

Motors by KIMBLE
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Branches and Sales Agents in 25 Cities

Linotype—Intertype
replacement parts

New Molds, universal and adv. fig. style	$ 55.00	Back Knives	$ 2.00
Back Jaws	10.00	Side Knives, set	13.00
Gross Assorted Screws	1.50	Plungers	4.00
Spacebands	.75	Dis. Box Bars	4.50
Liners, solid style	1.00	Sec. El. Bars	6.40
Rubber Rolls for Keyboard	.60	Vise Locking Screws	3.00
Border Blocks	4.00	Assembler Stars	.09
Transfer Fingers, Improved	.50	Assembler Fibre Buffers	.10
		Watch Oil for Keyboard Cams	.50
		First El. Spring Pawls	.07
		Knife Wiper Flags	.05

REBUILT MATERIAL

Rebuilt Molds (uni. and adv. fig.) ($10 allowance for old)	$ 35.00	Rebuilt Margach Type Feeders	$ 55.00
Rebuilt Mold Disks ($5.00 allowance for old)	35.00	Rebuilt Back Jaws	5.50
Rebuilt Electric Pots	150.00	Rebuilt Sec. El. Bars	4.00
Rebuilt Monomelts	150.00	Rebuilt Dis. Box Bars	2.50
Rebuilt Gas Pots	85.00	Reground Back Knives	1.25
		Reground Side Knives, set	10.00

REPAIRS

Rebuilding Magazines	$25-40	Regrinding Side Knives, set	$ 2.50
Rebuilding uni. and adv. fig. molds	25.00	Rebuilding Back Jaws	4.50
Regrinding Back Knives	.75	Rebuilding Sec. El. Bars	3.50
		Rebuilding Dis. Bx. Bars	1.75

FONTS

Over 300 always in stock. Write for list and proofs. We buy, sell and trade in all kinds of Linotype and Intertype parts.

Free Printer's Apron

With cash order of $10.00 or more mentioning this advertisement and offer.

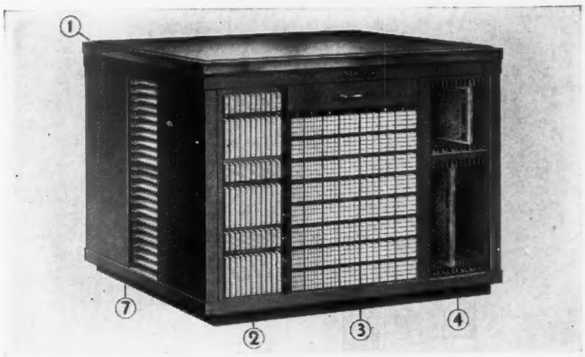
MONTGOMERY & BACON
TOWANDA, PENNA.

ALL YOU NEED
For Platen Press Lock-Ups

Hamilton No. 13983-X Imposing Table

● The No. 13983-X Imposing Table provides adequate working space for platen press lock-ups . . . with places for needed tools and a sufficient quantity of furniture and reglet.

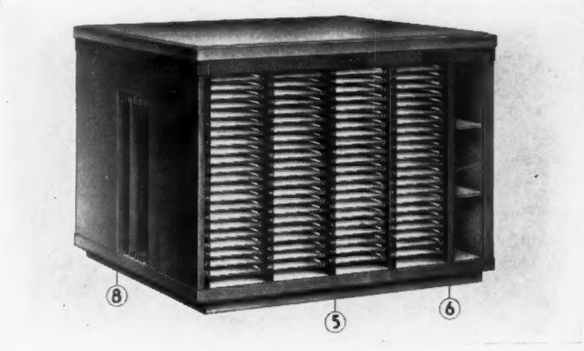
● In addition, the space under the table is used for storing work in process, locked-up forms, and empty chases.



EIGHT ADVANTAGES

● The numbers on the front and back views shown here refer to new built-in advantages:

1. Accurate, ground and polished, durable iron top.
2. Reglet unit for complete No. 3734 Font.
3. Furniture unit (with drawer) for No. 3744-A Furniture Font.
4. Chase Rack unit for 6-8 x 12″ and 6-10 x 15″ Chases.
5. Four tiers of runs for 88 galleys 8¾ x 13″.
6. Three compartments for empty galleys or storage.
7. One tier of runs for 22 galleys 8¾ x 13″.
8. Unit for 5 chases 14½ x 22″.



● Send for the complete Hamilton catalog showing the No. 13983-X Imposing Table and Hamilton's Unit Plan System of Holding Frames which permits you to design your own table from standard parts.

HAMILTON MANUFACTURING COMPANY
TWO RIVERS, WISCONSIN

Send me full information on Hamilton Composing Room Tables PE-5-40

Signed .....

Firm .....

Address .....

City and State .....

EQUIPMENT SALES

March Kluge Installations

12x18 Kluge Automatic Presses — John A. Heinrich Envelope Co., Minneapolis, Minn.; The Lakeland Press, Rice Lake, Wis.; J. M. Coe Printing Co., Inc., Richmond, Ind.; Charles Moran Press, Inc., Indianapolis, Ind.; Arnold-Barr Printing Co., Marion, Ind.; The Lincoln Press, Fort Wayne, Ind.; Secrist Printing Co., South Bend, Ind.; Unique Press, Inc., Rockford, Ill.; Michigan Lithograph Co., Grand Rapids, Mich.; Whitaker & Mohler Printing Co., Hamilton, O.; R. L. Polk & Co., Detroit, Mich.; Western Paper Goods Co., Cincinnati, O.; Lamour Printing Co., Monroe, Mich.; A. L. Bliven, Omaha, Neb.; Nazarene Publishing House, Kansas City, Mo.; Richmond Borough Publ. & Prtg. Co., Port Richmond, N. Y.; Bieber & Riegel, Emaus, Pa.; Tobia Naja Tobia, Brooklyn, N. Y.; Edward Borden, Cohoes, N. Y.; Gateway Press, Albany, N. Y.; St. Anthony's Guild, Paterson, N. J.; Rapid Printing Co., Brooklyn, N. Y.; Lecomte Rubber Stamp & Stencil, Shreveport, La.; John A. Bowen, Austin, Tex.; Waples-Platter Co. (2), Fort Worth, Tex.; Dean Printing Co., Sherman, Tex.; Press Printing & Publ. Co., Fort Myers, Fla.; Anderson Valley Times, Anderson, Calif.; Educational Co-op Publ. Co., Inc., Helena, Mont.; Campbell Printing Co., Abingdon, Va.; Packwood Printing Co., Inc., D. of C.; J. M. Feeser, Littlestown, Pa.; Economy Print Shop, Smyrna, Del.; Frediani Printing Co. (2), Pittsburgh, Pa.; James E. Wellett, Alhambra, Calif.; Acton Press, Providence, R. I.; Randolph Press, Worcester, Mass.; John D. Roche, Inc., Los Angeles, Calif.; Liberty Printing Co., Providence, R. I.; Payne and Layne, Printers, New Haven, Conn.

12x18 Kluge Feeders — American Printing Co., Saginaw, Mich.

12x18 Kluge Combination Die-Cutting & Printing Presses — Alexander Ungar, Inc., New Brunswick, N. J.; The Craftsman Press, Inc., Seattle, Wash.; Cosmo Printing Co., New York, N. Y.; Labor Advocate Publ. Co., Inc., Tacoma, Wash.

10x15 Kluge Automatic Presses — Boston Printing Co., Detroit, Mich.; Columbus Pharmacal Co., Columbus, O.; The Terry Company, Houston, Tex.; Ward and Ward, Printers, Pittsburgh, Pa.; Typocraft Company, Detroit, Mich.; Edward J. Ebrom, San Antonio, Tex.; The Beaver Printing Co., Inc., Greenville, Pa.; Armstrong Cork Co., Lancaster, Pa.; Western Tag & Prtg. Co., Los Angeles, Calif.

10x15 Kluge Feeders — Century Letter Shop, Indianapolis, Ind.; Al Bills Prtg. & Letter Co., Fort Worth, Tex.; A. L. Lang Print Shop, Andover, Me.; Dean Printing Co., Terre Haute, Ind.; Intermountain Publ. Co., Ogden, Utah; Henry F. Thomas, Ansonia, Conn.

4 Roller Kluge Automatic Presses — Carl Gren Printing Co., Houston, Tex.; I. H. Longshore, San Francisco, Calif.; B. D. Smith & Bros., Pulaski, Va.

Kluge Open Presses — Acme Printing Co., Kankakee, Ill.

Kluge Open Die-Cutter Presses — Graphic Calculator Co., Chicago, Ill.

Hoe Equipment Sales

During the past three months, reports R. Hoe & Co. Inc., orders for Hoe metal decorating presses include both two-color and single-color models. Among the recent purchasers are: Advance Metal Lithographing, Inc., Long Island City; American Can Company; Armstrong Cork Company, Lancaster, Pa.; Continental Can Company, Inc.; Heekin Can Company, Cincinnati, and Wheeling Steel Corporation, West Virginia.

At the present time The American Decalcomania Company of Chicago and The Palm Brothers Decalcomania Company of Cincinnati, are installing new direct rotary litho presses which have been built especially for them by R. Hoe & Co. Inc., for the production of a wide variety of decalcomania products.

Intertype Installations

One or more Intertypes have been ordered recently by the following: Berry Typesetting Co., Milwaukee, Wis.; Williston (N.D.) *Herald;* Temple City (Cal.) *Times;* Hattiesburg (Miss.) *American;* George W. Wagner, Denver, Col.; *Dalton Press,* Manson, Iowa; E. Laub, Los Angeles, Cal.; Sacramento (Cal.) *Bee;* Modesto (Cal.) *Bee;* Fresno, (Cal.) *Bee; New Era Progress,* Amherst, Va.; York Composition Co., York, Pa.; Brown & Bigelow, Inc., St. Paul, Minn.; The Maple Press, Malden, Mass.; Oregon City (Ore.) *Enterprise; Long Enterprise,* Safford, Ariz.; W. R. Typesetting Co., Chicago, Ill.; Leonard S. Labounty, Boston, Mass.; Pawtucket (R.I.) *Times;* Shaw Press, Pasadena, Cal.; Norman J. Dietel, Fredericksburg, Tex.; Sacramento, (Cal.) *Union;* Williamsport (Pa.) *Sun-Gazette; Courier-Northerner,* Paw Paw, Mich.; Waltham (Mass.) *News-Tribune; Newport Press,* Newport Beach, Cal.; *The New Korea,* Los Angeles, Cal.; Economy Printing Service, New York; *Merchants' News,* Amherst, Mass.; Benson Printing Co., Nashville, Tenn.; McManus & Scollon, New Rochelle, N. Y.; Maryland Training School for Boys, Loch Raven, Md.

Recent Linotype Installations

Six Linotypes have been added by the *Staats Zeitung,* New York, N. Y. One or more Linotypes, many of them with self-quadders, have been installed by Chicago Composition, Inc., Chicago; Van Dyck Printing Company, New Haven, Conn.; Phoenix Indian School, Phoenix, Ariz.; Lancaster (Pa.) *Intelligencer-Journal, New Era* and the *News;* Greater Buffalo Press, Inc., Buffalo, N. Y.; The Judson Company, Cleveland; Griffin (Ga.) *Daily News;* Jay (Fla.) *Tribune;* Birmingham (Ala.) *News* and the *Age-Herald;* Greiner Printing Company, Morris, Ill.; Bloomville (O.) *Gazette;* Superior Match Company, Chicago; Weinhold Printing Company, Phoenix, Ariz.; Centerville (S. D.) *Journal;* Greenville (S. C.) *News* and the *Piedmont;* Board of Education, Cincinnati, O.; East Hampton (N. Y.) *Star;* Day by Day, Daytona Beach, Fla.; Harrisburg (Pa.) *Patriot* and the *News;* Baker County Press, Macclenny, Fla.; Anthony Cash Press, Columbus, O.; N. W. Youngblood Company, Denver, Colo.; University of Alberta, Edmonton, Alberta; Wrigley Printing Company, Ltd., Vancouver, B. C.; Mirro Printing Service, Glendale, Calif.; Manual High and Vocational School, Kansas City, Mo.; Medical Journal Press, Woodbourne, N. Y.; Clarinda (Iowa) *Herald-Journal;* N. E. Youngblood Company, Denver, Colo.; Wharton (Tex.) *Spectator;* Terry Brothers, Printers, Wichita Falls, Tex.; Insurance Index, Louisville, Ky.

Stereotype Equipment Sales

Recent sales of stereotyping equipment reported by the Wood Newspaper Machinery Corporation include a Standard Pony Autoplate with vacuum and double-page equipment to the Stamford (Conn.) *Advocate;* two vacuum casting equipments for Automatic Autoplates to the New York *News* and to the Boston *Herald Traveler;* one Standard Pony Autoplate to the Alhambra *Post Advocate;* two Heavy-Duty Pony Autoplates to the Syracuse *Post Standard* and to the Akron *Beacon Journal;* one Standard Pony Autoplate, with vacuum, water-cooled arch, and double-page equipment, to the Bloomington (Ill.) *Daily Pantagraph* and the Columbia, (S. C.) State; one vacuum casting equipment for Pony Autoplate to the Asbury Park *Press;* one vacuum equipment for Junior Autoplate and two vacuum equipments for a double Junior Autoplate to the Houston (Tex.) *Post* and the Toledo (O.) *Blade* respectively; one Heavy-Duty Autoshaver to the New Orleans *Times Picayune;* one Heavy-Duty Autoshaver, two vacuum equipments, for Junior Autoplates, to the Miami (Fla.) *Herald;* and one Junior Autoplate equipped with vacuum, one Standard Autoshaver, and one Standard Pony Autoplate, to Publications Research, Inc., New York.

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Their drying speed is amazing

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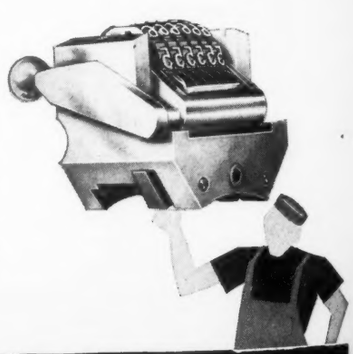
ROTARY PRESSES
Equipped with
WETTER
Number Better

Locking time is reduced and fine adjustment is facilitated by exclusive features of Wetter Rotary Numbering Machines. Interchangeable, too, for right angle or parallel operation. Deeply engraved figures, accurately turned to cylinder sizes, insure better work.



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LUBRICATED FOR LIFE
LARGE OR SMALL
There is a PULSOLATOR system for automatically lubricating every type and size of printing press.
Customers write that Pulsolator
"Increases press productive time 3.3%"
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At your request our engineer will call and demonstrate how Pulsolator obtains these savings.
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RIVETT LATHE & GRINDER INC.
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Automatic oil lubrication
BLANCHARD PULSOLATOR

It's a honey!

The Jordan
CONTINUOUS
METAL
FEEDER

For the LINOTYPE--INTERTYPE
MONOTYPE--LUDLOW--ELROD

A self-actuating feeder. No need to pull back the chain whenever a new pig of metal is to be attached. Pigs do not overlap, therefore can not jam in the metal-pot. Pigs feed down in exact amount of metal cast regardless of whether light or heavy slugs are being cast. Pig will not drop suddenly to bottom of pot as sometimes occurs with old-style feeders.

Tell us the type of machine on which you want to install continuous feeding and we will ship you a Jordan Feeder with the proper support, ready to be attached in a few minutes by your machinist or operator. The price, including support . . . . . $75.

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200 Diamond St., Brooklyn, N.Y. 2246 W. Hubbard St., Chicago, Ill.
4101 Curtis Ave., Baltimore, Md. 785 Bryant St., San Francisco, Cal

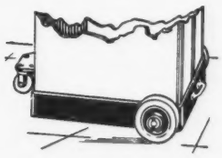
as fine a type metal as is made
UNITED AMERICAN

IT'S A SWELL IDEA!

Relieve congestion when making up those fussy ads by installing a mobile C&G Model 3-A Saw Trimmer.

C&G No. 3-A
Saw Trimmer

The Detroit News now using 6 stationary Model 3-A Saw Trimmers and 2 mobile.

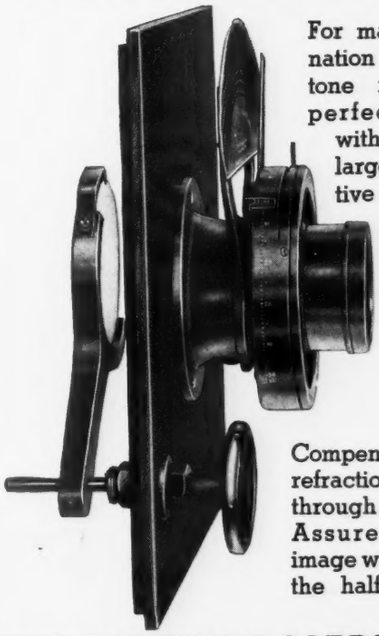


Equipped with solid rubber wheels and caster with 10 foot cord for plugging into any convenient outlet. Entire machine is self contained.

Write for details.

Milwaukee Saw Trimmer Corp.
612 E. Clybourn St., Milwaukee, Wis.

The DOUTHITT
SCREEN COMPENSATOR



For making combination line and halftone negatives in perfect register, without inserting large size refractive glass or manipulating the camera.

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PATENTED

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Compensates for the refraction of the light through the screen. Assures same size image with or without the halftone screen.

THE DOUTHITT CORPORATION
650 W. BALTIMORE DETROIT, MICHIGAN

"FLECTO" — GUMMED BACKING FELT

Recommended by Stereotypers everywhere

Coated with glue that will not slip or leave the matrix under heat. Tears easily. Made in gauges .025, .030 and .035 — Sheets 18 in. by 24 in., and gauges .040, .045 and .050 — Sheets 18 in. by 22 in. Cut into strips without charge.

Free samples on request

"PLATE-TAK" — CUT MOUNTING TAPE

No tacks. No cement to squeeze out. Simply lay a strip of this super-thin tape under the cut; press down by hand, and the cut is there to stay. When through, the tape strips off, leaving clean surfaces on both cut and base.

Free samples on request

Send for latest catalog on newspaper supplies

EASTERN NEWSPAPER SUPPLY

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TECHNICAL LITERATURE

G-E Bulletins

General Electric has published a group of six bulletins, illustrating and describing products as follows: No. GEA-214D, G-E Calrod Immersion Heaters for water and oil; No. GEA-1157C, G-E Strip Heaters; No. GEA-1265D, G-E Thermostats for use with midget heating units; No. GEA-2592A, G-E Unit Heaters, forced and natural-convection types; No. GEA-2618A, G-E Fin Calrod Heating Units for forced-convection air heating, and GEA-104B, G-E Cartridge-type Heating Units. Any or all of these bulletins available upon request. Specify by numbers in your request.

RLM Fluorescent Luminaries

For general or supplementary lighting, in low bay industrial areas, Westinghouse Lighting Division has published a booklet describing RLM fluorescent luminaire lighting fixtures. No. 61-152.

Warnock Block Catalog

Illustrated catalog published by W. S. Warnock Co., describes Warnock block and hook systems for mounting plates. Included is a proof from actual base taken with kiss impression.

For Letterpress Printers

Lanston Monotype Machine Company has published broadside in which are listed Monotype Platemaking Equipments for lithography, offset and gravure.

Ideal Litho Rollers

Folder published by Ideal Roller & Mfg. Co. contains information about Ideal lithographic and photolith rollers; also gives illustrations of rolling-pin and breyer type of hand-proofing rollers.

Linograph 50

Linograph Corporation has published a 24-page illustrated catalog describing the 5 magazine Linograph line-composing machine, including a number of mechanical details.

Color Comes of Age

A booklet 6 in. by 9 in. (48 pages and cover) has been published by General Printing Ink Corporation. The booklet contains a complete report of the first Printing and Advertising Clinic, "Color Comes of Age," by Faber Birren, Julian Harnset and Frederic H. Rahr. A copy of the booklet will be sent to anyone asking for it. Address General Printing Ink Corporation direct or in care of *Printing Equipment Engineer*.

Complete Vogue Showing

A booklet containing a complete showing of Intertype Vogue is announced by the manufacturers of this sans serif type face. The booklet contains 28 pages, is printed in two colors, and shows many variations and extensions not included in the original booklet. Copies of this booklet will be sent upon request to Intertype Corporation.

Revised Booklet

Certified Dry Mat Corporation has published a revised 1940 edition of its booklet entitled How to Get the Most Out of Your Dry Mat and Stereo Expenditures. Discusses in informal technical manner some of the fundamentals of stereotyping process, and gives purposes of each kind of mat made by Certified.

Monotype Bell Booklet

Lanston Monotype Machine Company has published a booklet approx. 6½ in. by 10 in., which is devoted to a showing of Monotype Bell Series No. 402 in sizes from 8 to 14 pt. Display sizes up to 36 pt. are being made. In designing the booklet, the typographic style which was characteristic of John Bell has been followed, making the booklet as nearly as possible an authentic reproduction of Bell's typographic style. A copy of the booklet will be sent to anyone asking for it.

ATTENTION STEREOTYPERS

Hundreds of stereotypers are getting perfect molding and stereotype mats through the use of **Franklin Apex Combination Molder** and the **Franklin Klean-print Molding Blanket.** Write today and let us send you samples and complete information on these products.

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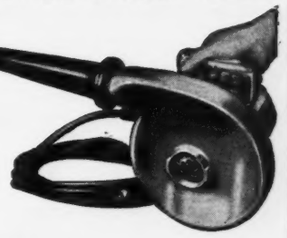

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Quick, Efficient, Safe, Machine Method of Cleaning Matrices in the Magazines.

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Two Wesel Final Beds, sections; 1—17 x 24; 1—24 x 24; 4—13 x 16½; 2—19½ x 26; 1—20 x 29; and 1—21½ x 29; making two beds 38 x 50 with 600 good hooks for $500.00. Address *Printing Equipment Engineer,* Box No. 9

4300 sq. in. of Latham Sectional base with 800 hooks all in good condition for $500. Address *Printing Equipment Engineer,* Box No. 10.

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MECHANICAL EQUIPMENT—12 page Single Width Goss Press, equipped with Compensators for Color Printing; complete with or without A.C. Drive, including Three Ton Pot and Stereotype Equipment. Press to be moved at least thirty miles from New York. Style B Kelly with Extension Delivery and Auxiliary Distributor to print full form—17x22. 10x15 C & P with Kluge Feeder. Cash.

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GENERAL REPAIR OF LINOTYPE AND INTERTYPE MOLDS (ANY KIND, ANY SIZE). PARTS, ETC., SINCE 1912
Makers of Reid Magazine Racks, Etc.
WILLIAM REID & CO., 2271 Clybourn Ave., Chicago, Ill.

HALFTONE DEPTHS

(*Continued from Page 11*)

In a revision of the 1914 depth recommendations, those figures concerning the 110, 120 and 133 line halftones should be increased more than Mr. Schotanus has suggested. The big increase in rotary letterpress printing from curved lead mold nickeltypes for magazine and commercial work has created a definite demand for greater depth in halftones of these screens. This need can best be illustrated by the practice of one of the large magazine publishing houses in subjecting all original halftone plates received from outside sources to a flat etch before molding. Depths that are suitable for flat plate printing do not suffice where curved lead mold nickeltypes are to be made from the halftones. We feel that either a special depth for halftones intended for this class of work should be recommended, or (and better still) all of the recommendations for depths of these fine screen plates should be increased at least 0.0005 in.

For newspaper reproduction, a photoengraving, electrotype, stereotype or mat may be furnished to the mechanical department. In the cases of the three plates, they are incorporated directly into the page form. Thus a loss of 20% of depth respectively, may be anticipated in the making of the page mat and resultant curved printing stereotype. An additional 10% loss of depth must be expected where the mat was furnished the newspaper, because it is necessary to cast a flat stereotype from it for incorporation in the page form.

It must be remembered that when a wax molded electrotype is made from a halftone, a loss of 10% of depth is usually experienced. Lead molded nickeltypes lose not more than 1 or 2% of depth. It can be seen, therefore, that originals furnished for mat making or for electrotyping must have the full specified depth. On the other hand, when original photoengravings are furnished directly to newspapers this loss of depth, encountered in the duplicating processes, is avoided. Consequently it would seem that such originals would not be required to possess full depth and yet they would be mechanically suitable for newspaper reproduction.

The depth of 0.0085 in. recommended by Mr. Schotanus for light tones in 55 screen halftones should be adopted. This allows ample tolerance for loss of depth in duplicating processes and conforms with the depth desired by newspaper mechanical executives. This figure should be expressed as a minimum, however.

The whole problem is a complicated one. So many factors may influence the final printing results that the simple publication of a set of halftone depth values will not simplify the situation. Here is a subject worthy of careful investigation.

Printed Products

Acting under authority of the Southern Master Printers Federation, Secretary V. C. Garriott reported to the 1940 Federation convention in Natchez, Miss., early this month that the completion of a price determination schedule had been completed and that the schedule entitled *Printed Products* would be published early in the fall. It will be available to the entire industry.

Says Secretary Garriott in part: *Printed Products* recognizes that competition is a prime factor in pricing printing, never losing sight of the fact that cost must be recovered and a profit provided for . . . and at the same time provide protection for the customer against excessive or unfair values. Commercial printers must provide for a difference in quality production that will enable the printer to meet the competition of the specialist by setting up their plants on an economical production schedule that will permit differences in the quality of the work delivered."

Flint Executive Changes

Effective May 1, it has been announced that Russell H. Greene, formerly of the Atlanta office of Howard Flint Ink Company has been appointed manager of Flint's New Orleans office at Jefferson Davis Parkway and I. C. R. R. On the same date, Edward Claxton, formerly of the Detroit office, was made manager of the Atlanta office.

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free TECHNICAL INFORMATION AND LITERATURE FOR *you*

Circle the numbers on the convenient postage-paid return card, supply your name, title and company address and mail — we do the rest. Manufacturer or supplier will send you information or literature about equipment or supplies advertised in this issue. This card saves you time and postage — Keep informed — No obligation.

Pressroom

1 HOE offers data on its pasters, folders, reels and tensions. Circle this number on the coupon to get latest information on Hoe equipment.

2 PRESS — ATF this month offers a five-color press sheet from the ATF No. 2 Kelly. Post-card brings it. Just circle this number and mail.

3 PRINTING PRESS BLANKETS — Tingue, Brown & Company enumerate the various kinds of press blankets supplied by them. Prices and samples will be sent to you. No obligation.

4 PAPER —"To get the most out of your printing, investigate Champion Paper, the foundation for good printing." Champion Paper & Fibre Co. offers information on its complete line of papers. Gratis.

5 OFFSET PRESS — "To produce the best in Offset, you must have modern equipment." Harris-Seybold-Potter Co. offers interesting reading matter on its press — also information on Harris Litho chemicals.

6 INK — "Zephyr Blacks, for flatbed presses, are favorites across the nation. Drying speed is amazing." Sinclair & Valentine offers descriptive folder. Send for it.

7 COMMERCIAL PRINTING PRESS — "For large profits on difficult printing and finishing requirements, and for the solution of many special problems, investigate the New Era Flat-Bed Web Press." Free booklet.

8 LUBRICATION — "There is a Blanchard Pulsolator System for lubricating every type and size of printing press." Bulletin B-30 will be mailed to you promptly.

9 NUMBERING MACHINES — for flat bed and rotary presses are manufactured by the Wetter Numbering Machine Company. Full information and description offered.

10 ROLLERS — "Durability, concentricity, economical, easily washed." Rapid Roller Company offers information on "Tomorrow's Roller Today." Send for it.

11 PAPER — International Paper Company offers to mail you, gratis, samples and details on its "Champlain" stock. Check up on the qualities of this paper. Use the coupon.

12 PRESS — ATF "Little Giant" press sheet and details on this press will be mailed to you. Just circle this number on the post-card.

13 OFFSET EQUIPMENT — Let American Type Founders send you details on its complete line of Offset equipment. "From the darkroom to the pressroom." No obligation.

14 PROOF PRESS — Vandercook & Sons will be glad to send you details on its new and rebuilt proof presses. No obligation, just fill out the coupon and mail.

Composing Room

15 SAW — "1100 plants have discovered that the Glider obsoletes all others — cuts sawing time one-third." Hammond Machinery offers full description and prices in interesting booklet. Send for it. Just circle this number on the post-card.

16 METAL FEEDER — "The Jordan continuous feeder has many exclusive features." United American Metals Corp. will be glad to send you interesting data. Learn more about this feeder.

17 DOUTHITT CORPORATION offers complete catalog describing its complete line of chemicals and supplies, photo engraving and lithographic plate making equipment. Send for it.

18 INFORMATION — On Imperial Type Metal Company's "Plus Plan" will be sent to you. Use the coupon.

ARE YOU INTERESTED IN SYNTHETIC ROLLERS?

Would you be interested in learning more about synthetic Rollers for printing presses? If so, kindly fill out this card and mail — No obligation.

Would you like to read editorial articles in PRINTING EQUIPMENT Engineer on Synthetic Rollers? ☐

Without obligation would you like to receive manufacturers literature on synthetic rollers? ☐

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Name and Title.....

Street..... **City**.....

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PRINTING EQUIPMENT Engineer **May**
1276 West Third Street, Cleveland, Ohio.

Without obligation please have the manufacturers send me literature or information circled below. (These numbers correspond to numbers on descriptive paragraphs).

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40								

PRINT YOUR NAME AND ADDRESS

Name.....**Title**.....**Dept**.....

Firm Name.....

Street.....**City**.....**State**.....

Use this Free Service — Keep up-to-date on Equipment and Supplies

19 REPLACEMENT PARTS for Linotypes and Intertypes. Use the postage-paid return card to get free catalog of parts, material and repairs. Offered by Montgomery and Bacon.

20 FREE CATALOG—Hamilton Mfg. Company will send new No. 22 Catalog, containing full description of the various Hamilton type cabinets, bins, tables, etc.

21 CUT CEMENT—"Booth's Zink Cut Cement holds with the grip of a Tiger's paw — saves time in the composing room." Let the E. A. Booth Rubber Company send you full information. Circle this number on the coupon.

22 DETAILS AND SPECIMENS of Ludlow typefaces will gladly be sent you by The Ludlow Typograph Company. Learn more about Ludlow equipment.

23 DETAILS on New Universal Intertype are offered by the Intertype Corporation. Check up on this new typesetting machine. No obligation, just fill out the card.

24 SPECIMENS of the new Monotype "Stylescript" are offered by Lanston Monotype Machine Co. Post-card brings booklet on this typeface.

25 BAND SAW — "The Rouse saw does the work of hours in minutes." Let the H. B. Rouse Company send you booklet containing information and pictures of the Rouse Band Saw.

26 METAL FEEDER — "Feeds as little as one thirty-second of an inch." Let Linotype Parts Company give you circular on the "Star self-actuating Feeder."

27 LINOGRAPH '50' gives more value per invested dollar, states the Linograph Corporation. This number circled on postage paid return card brings you, gratis, Linograph catalog.

28 SAW TRIMMER—Milwaukee Saw Trimmer Corporation will send you details on its "C&G No. 3-A Saw Trimmer." Just circle this number on the coupon, we do the rest.

Stereotype Dept.

29 MAT FORMER — Sta-Hi Corporation will be glad to give you booklet describing its "Master Former." Coupon brings it.

30 DRY MATS — Wood Flong offers sample lot of its dry mats. "Wood Mats give white highlights—solid blacks—true halftones and middletones — deep molds — clean plates."

31 FREE SAMPLES of "Flecto" Gummed backing felt and "Plate-Tak" Cut Mounting Tape are offered by Eastern Newspaper Supply. Circle this number on the coupon. We do the rest.

32 DRY MAT — "For consistent readability, Certified clarity is a big help." Mail the card for further data. Gratis.

33 MAT CASTER — "Easy Kaster '8' ", states Hammond, "casts perfectly in every respect with the minimum of effort. Single column to full page mats. Equipped with or without 800 lb. valve-controlled melting pot." Hammond will gladly send you prices, terms and descriptive matter.

34 DRY MAT — Burgess states, "The ability of the stereotyper shows to best advantage when he uses Burgess Chrome Mats." Circle this number on the coupon to get samples and booklet describing Burgess Mats.

35 CATALOG of supplies for the printer will be mailed to you by American Publishers Supply. Contains many useful products used daily in stereotype departments. Coupon brings it to you.

36 DRY MAT — Flexideal Dry Mat Corporation offers free samples of Flex Dry Mats. Mention gauge, shrink, type of equipment you use. Fill out the coupon and mail. We do the rest.

Miscellaneous

37 CUTTERS — Seybold Machine Company will be glad to mail you complete interesting details on its line of power cutters. Fill out the post-card and mail. We do the rest.

38 ZINC — "Dependable plates mean better engravings and more work for letterpress." Atlantic Zinc Works will send you booklet entitled "Getting Down To Zinc Facts."

39 PRINTING EQUIPMENT MOTORS — Kimble Electric describes the modern design of its motors, built especially for the printer, in a booklet which will be mailed to you without obligation. Coupon brings it.

40 CUTTER — Booklet entitled "Appraising the Diamond Paper Cutter" will be mailed to you by the Challenge Machinery Company. Send for it. Free.

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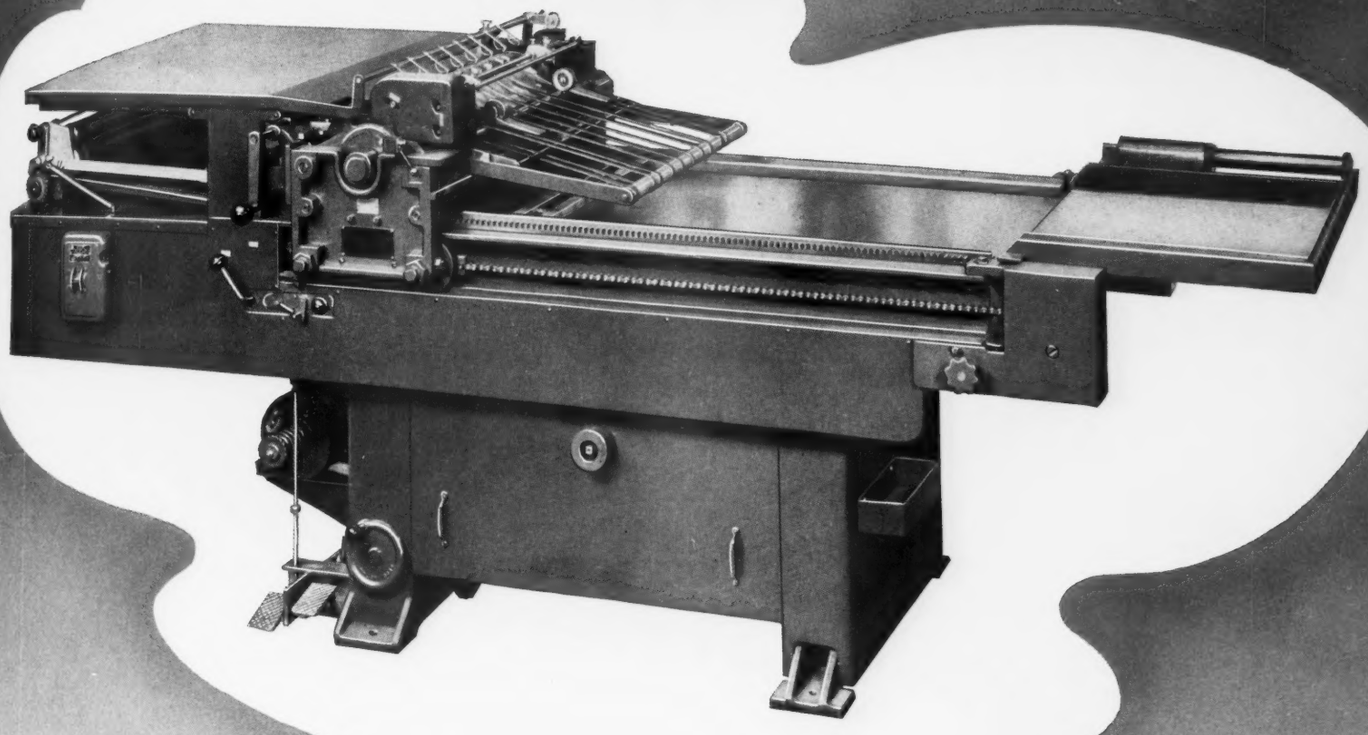
HOW TO *Influence* ADVERTISERS



Many leading newspaper publishers have found that GOOD proofs, supplied in ample quantities have a favorable and lasting influence toward greater customer satisfaction.

A few years back, when a good proof of a newspaper advertisement was a rarity, quality was not so important. Now, the advertiser expects good proofs —suitable for departmental reading, posting, or distribution to the sales force. It may be that your competition supplies them.

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Eastern Branch
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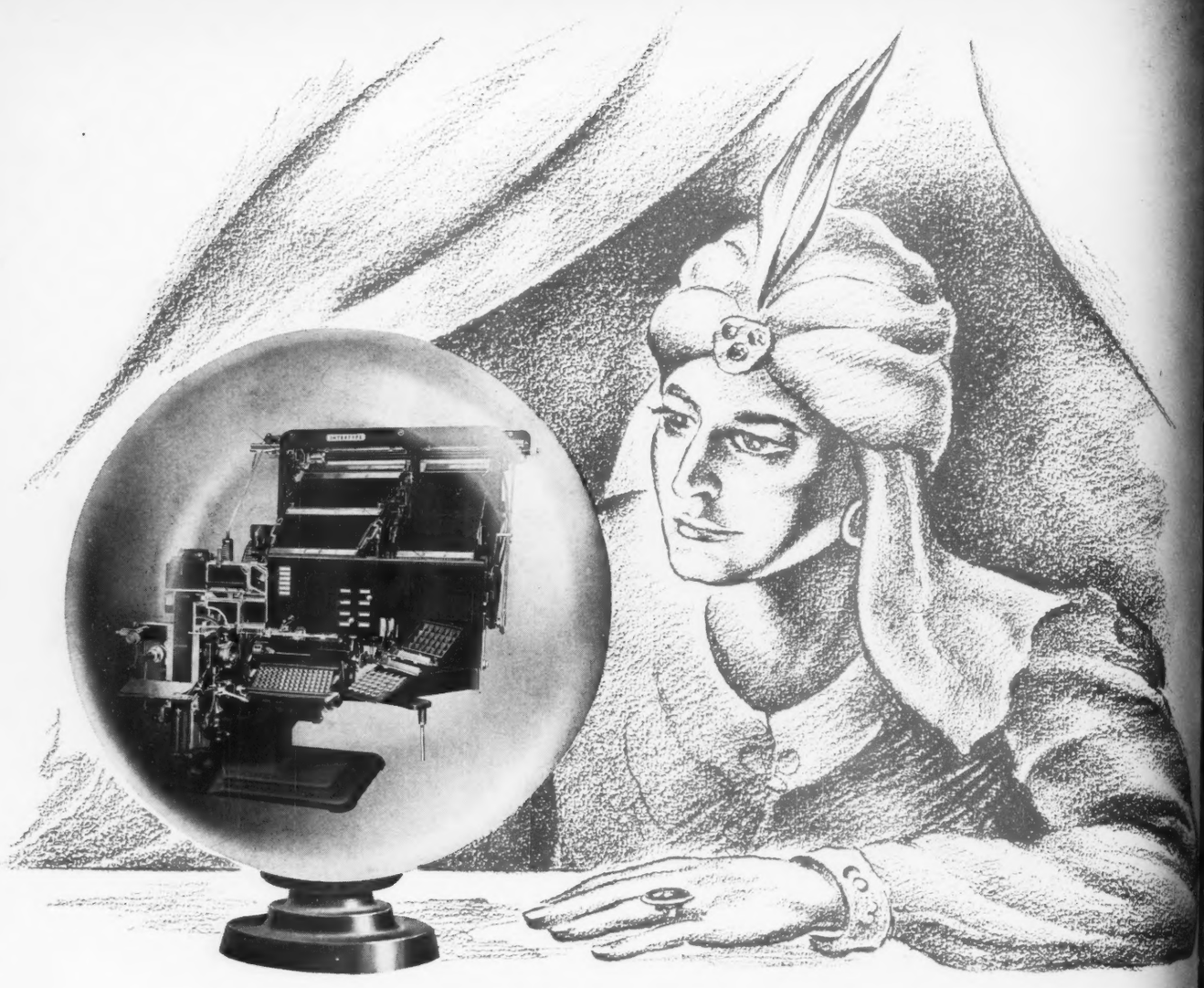
CANADA: SEARS LIMITED, TORONTO, MONTREAL, WINNIPEG, VANCOUVER



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Universal Intertypes are designed to protect you against unnecessary loss due to changes in your requirements. Machines are now available which can be converted from one model into another—even from a mixer into a non-mixer, and vice versa—at any time in the future. Many flexible combinations of text and display magazine equipment are now obtainable—combinations which can be altered, even in future years, to meet new conditions as they arise in your plant.

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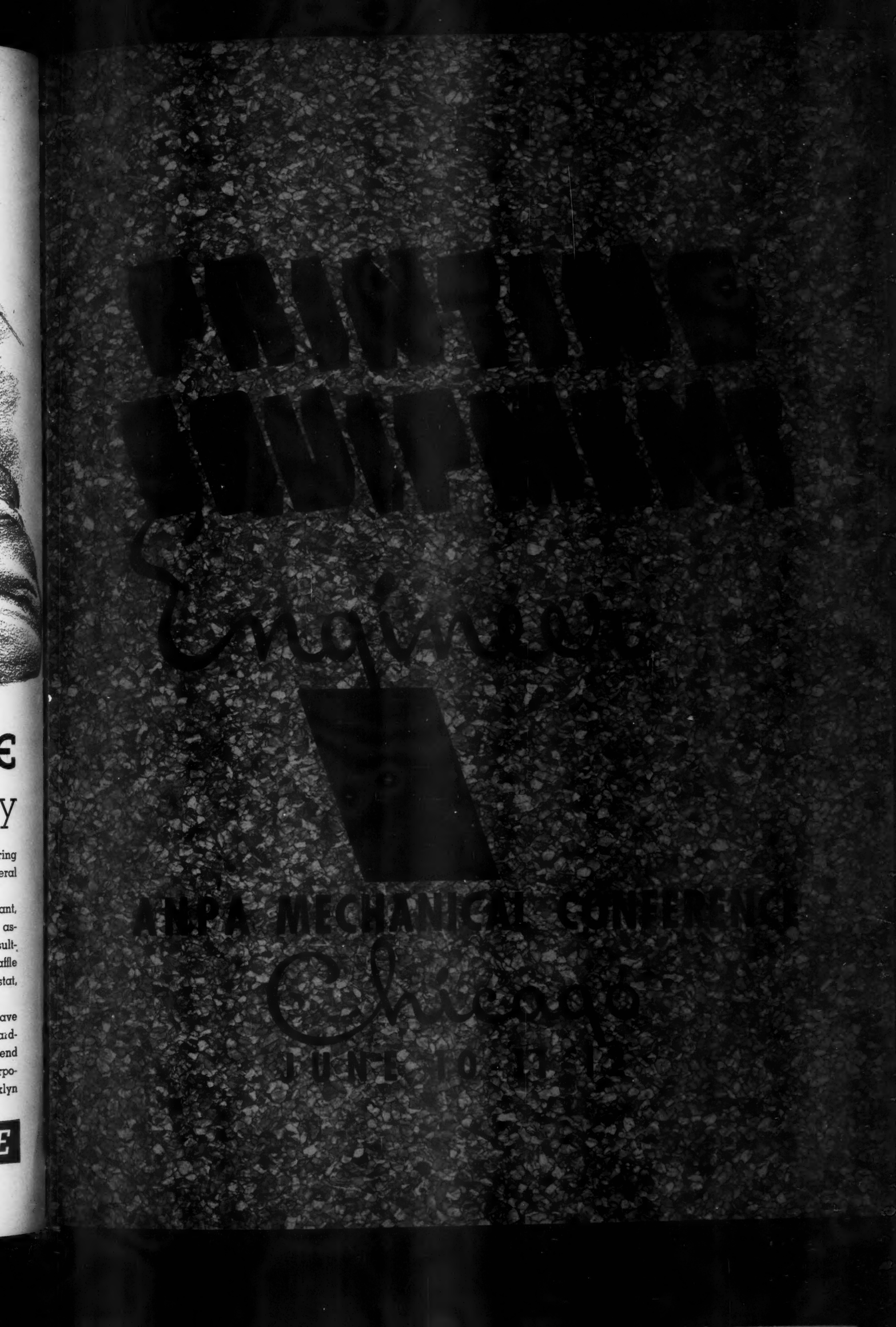
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